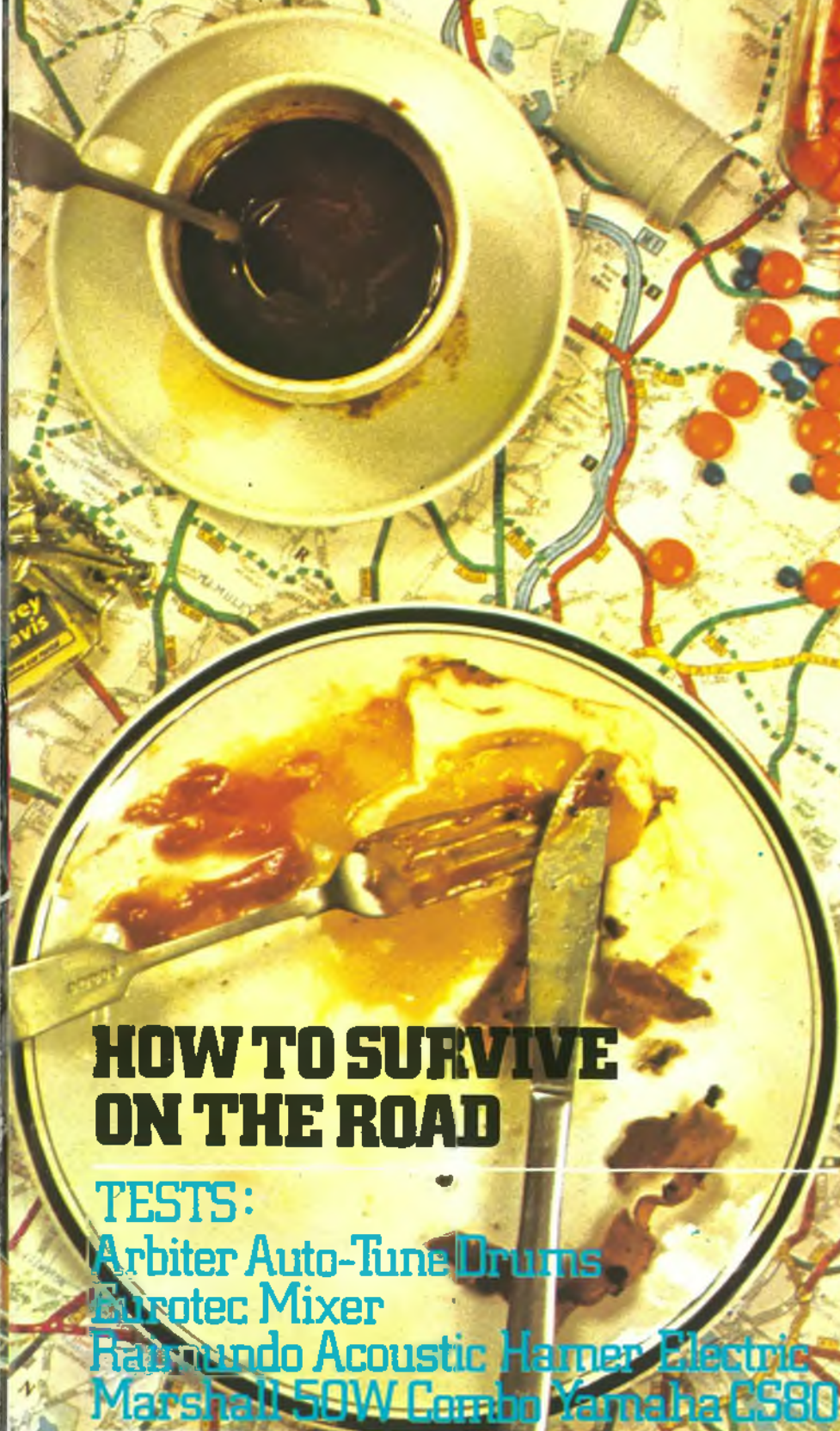


January 1978 40p

Chase Musicians  
Supplement

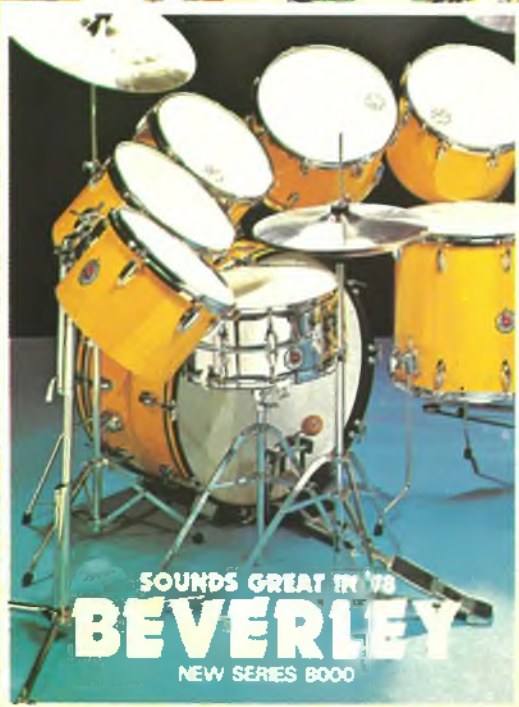


# HOW TO SURVIVE ON THE ROAD

**TESTS:**  
Arbiter Auto-Tune Drums  
Eurotec Mixer  
Raiundo Acoustic Hamer Electric  
Marshall 50W Combo Yamaha CS80

Build a Mixer Guild Market Report

**£1,000** Cat & Guild Competition



SOUNDS GREAT IN '78  
**BEVERLEY**  
NEW SERIES 8000

# KRAMER STICKS ITS NECK OUT

## TO GIVE YOU THE PERFECT INSTRUMENT



New Generation Guitars ☺

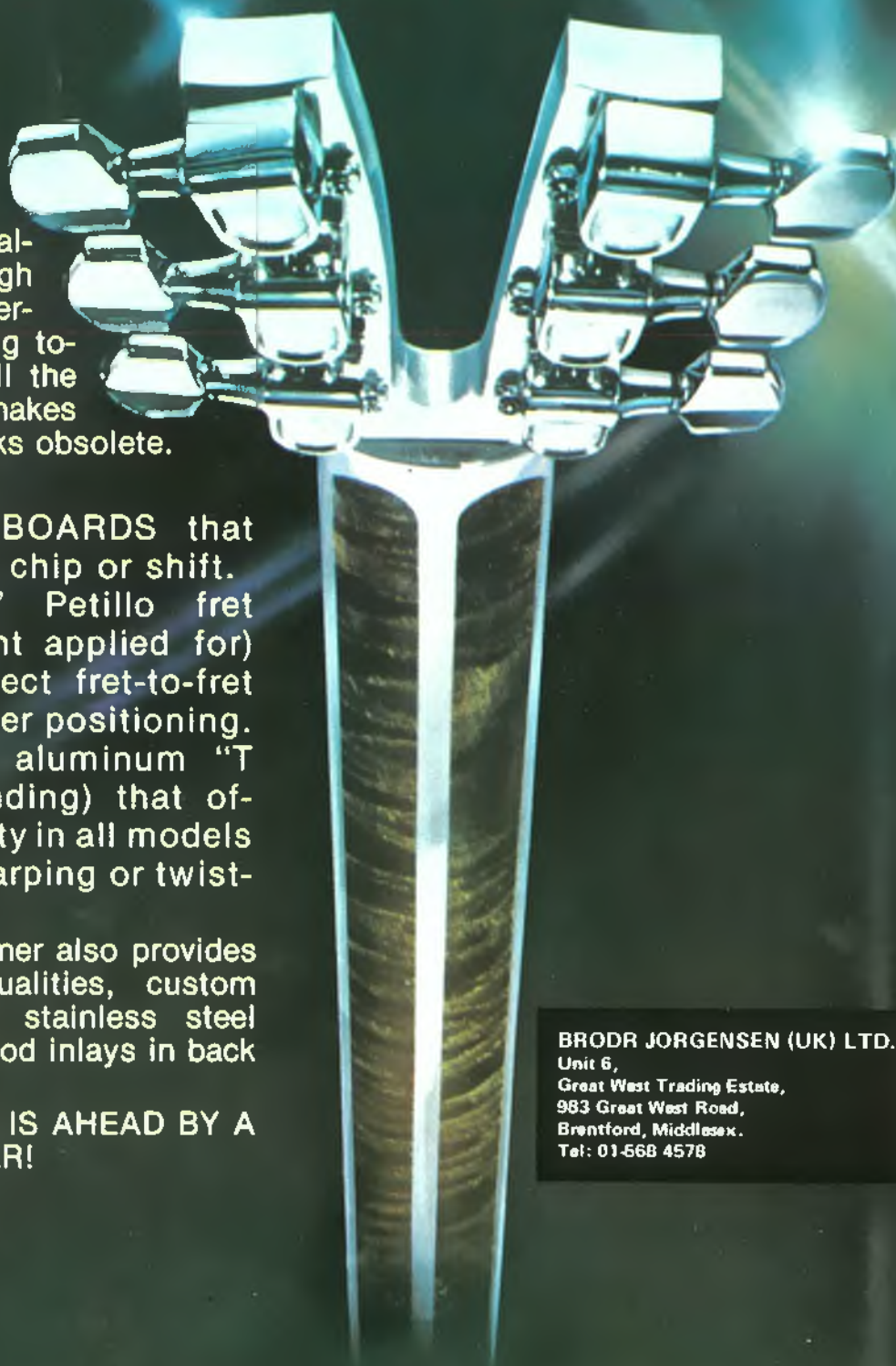
Kramer solid body electric guitars and basses represent a breakthrough in design that allows you to break-through to the ultimate in your performance. It's something totally new that leaves all the others behind and makes conventional guitar necks obsolete.

Only Kramer features

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

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

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



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

# CHINGFORD - the Sound of Savings!

Forget all the headaches of buying your gear in the West End. For a fantastic range of equipment, easy parking and free delivery, come to Chingford. Chingford Group Gear is now twice the size - giving you bigger choice & bigger bargains.

NOW IS YOUR CHANCE TO OWN THIS BEAUTIFUL

## WURLITZER EP 200 Piano

AT THE UNBELIEVABLY  
LOW PRICE OF  
(INCLUDING VAT)

**£475**

### FENDER RHODES STAGE '73

ONLY

**£575**

INC.V.A.T.

### FENDER SUITCASE '73

ONLY

**£1,095**

INC.V.A.T.

## SOLTON

musical sound equipment

### 2 SPEED ROTARY SPEAKERS WITH BRAKE

The answer to the organists dream. A rugged, powerful, portable speaker system that gives a full vibrant sound with an amazing output. Send to Chingford for full specification.

DOPPLERTONE 150	150watt	£645	£695 with reverb
TURBO-JET 100	100watt with treble horn	£495	£545 " "
TURBO 1S	100watt	£395	-

#### INSTANT CREDIT

Arranged by telephone with deposits as low as 10%.

#### UNBEATABLE AFTER-SALES SERVICE

by our own team of fully qualified service engineers.



#### FREE DELIVERY

Anywhere in the U.K. by our own vehicles and personnel.

## CHINGFORD ORGAN STUDIOS LTD

230 Chingford Mount Rd., London E4 Telephone: 01-524 1446/7/8  
38 Ballards Lane, Finchley, London N3 Telephone: 01-346 3059/8948  
35 Horseshoe Street, Northampton Telephone: 0604 22936/7

GROUP GEAR

242 Chingford Mount Rd., London E4 Telephone: 01-524 1446/7/8

To: CHINGFORD ORGAN STUDIOS LTD  
230 CHINGFORD MOUNT ROAD, LONDON E4  
Please send me details of the Chingford Keyboard Collection  
NAME .....  
ADDRESS .....  
TEL: ODS

<b>Editorial Director</b>	Ray Hammond
<b>Advertisement Director</b>	Richard Desmond
<b>Promotion Director</b>	Malcolm Green
<b>Art Director</b>	Mervyn King
<b>Art Assistants</b>	Chris May, Dave English, Fiona Beecham
<b>Photography</b>	Mike Valente
<b>Assistant Editor</b>	Ian White
<b>Features Editor</b>	Eamonn Percival
<b>Chief Reporter</b>	David Lawanson
<b>Production Manager</b>	Andrea Beerman
<b>Assistant Production Manager</b>	Gordon Burton
<b>Type Composer</b>	Valerie Pressman
<b>Advertisement Executive</b>	Giles Neville
<b>Keyboard Consultant</b>	Rod Argent
<b>Technical Consultant</b>	David Blake Mark Sawicki Msc (Eng) Assoc. M.I.E.E. MAES
<b>Guitar Consultant</b>	Stephen Delft M.I.M.T.
<b>Drum Consultant</b>	Bob Henriit
<b>Electro-Acoustics Consultant</b>	Ken Dibble M.I.O.A./MAES
<b>U.S. Editors</b>	Jon Tiven, Gary Graifman, Steve Rosen

## LONDON

International Musician & Recording World is published monthly by Cover Publications Ltd., 7a Bayham St., London NW1 0EY. TELEX NO: 24676 TELEPHONE: 01-388 2011 Distributed in Great Britain by Independent Magazines Ltd., Bridge House, 181 Queen Victoria Street, London EC4V 4DD. Tel: 01-248 3482 (10 lines). Printed by Carlisle Web Offset, Carlisle, Cumbria, England. International Musician & Recording World is a trademark of Cover Publications Ltd. All rights reserved © Cover Publications Ltd., 1977. Whilst every care is taken in the publication of this magazine, the publishers cannot be held responsible for any results arising from the contents thereof. Subscriptions, 12 months only: U.K.: £8.50; Worldwide (surface mail), £11.00; U.S. (include 12 issues, shipping charges to New York, N.Y., and mailing costs from N.Y. \$20. Second class postage paid at New York, N.Y., and at additional mailing offices.

## NEW YORK

Executive Offices: The Gulf & Western Building, 15 Columbus Circle, N.Y. 10023 U.S.A. Tel: (212) Editorial & Advertisement Offices: Rockland County Offices, 501 South Main St., Spring Valley, New York. 10977 Tel: (914) 358 2570. United States General Manager Julius Graifman *Sole International Distribution Agents* Gordon & Gotch (Canada) Ltd., 55 York Street, Toronto, Ontario, M5J 1S4 Canada Gordon & Gotch (Australia) Ltd., Melbourne, Sydney, Brisbane, Adelaide, Perth. Gordon & Gotch (NZ) Ltd., Wellington, Auckland, Christchurch, Dunedin Central News Agency Ltd., South Africa. All major cities.

## Regular Features

**I**  
**Playing—Electric Guitar**  
 A set of exercises by Jim Sullivan incorporating most of what he's shown you so far.

**II**  
**Playing—Bass Guitar**  
 Jim Rodford, the bass that launched a thousand licks, on the prestigious fretless bass.

**VI**  
**Playing—Drums**  
 Top percussionist Andrew McCulloch on the art of constructing a listenable drum solo.

**12**  
**Letters**  
 All the scam straight from the streets, man. Readers' views on DJ's, live music and lots more.

**18**  
**Buzz**  
 Which band did a charity gig with Tony Blackburn and lived to tell the tale? Find out in our monthly grapevine.

**73**  
**I.M.'s Guide To Recording**  
 Robin Lumley takes you on a guided tour of the recording studio. Places of interest include the leaning Mixer of Pisa and the sun-soaked abbreviations of D.I. and A.D.T.

**101**  
**Playing—Country Blues Guitar**  
 Get the burnt cork out and learn to play "De Blues". Stefan Grossman picks a particularly pretty piece of picking for this periodical—"Crow Jane"

**150**  
**Albums**  
 Uriah Heep, Krazy Kat, Hummingbird, Graham Parker, The Jam, Bob Welch and Sherbet all have one thing in common—their albums are reviewed by I.M.'s boring old farts.

**172**  
**Guild Market Report**  
 Want to know what a million and one dealers think of Guild guitars? We reveal all.

**187**  
**Trade News**  
 All the news from the trade.

**201**  
**Ad Index and Competition Entry Forms**

## Test Section

### SOUNDCHECK

**36**  
 Two helpings of Soundcheck this month. First off, the Laurel and Hardy of electronics, Blake and Sawicki, peruse a new Marshall 50 watt combo and find it has power to spare.

**38**  
 The new Eurotec modular mixer is next up on the conveyor belt for our dynamic duo to examine. A 12 into 2 console can't be bad for just over £300—or can it?

### delft's GUITARCHECK

**41**  
 Stephen Delft looks closely at a Raimundo 112 classical guitar, a relatively inexpensive instrument, and discovers it has a sweet and full tone.

**42**  
 This time, Stephen explores the Hamer electric guitar—a new model with two Di Marzio pickups and a good sound.

### henrit's DRUMCHECK

**44**  
 Andrew McCulloch gives you the lowdown on an Arbiter Autotune Concert Showman kit and somehow brings jam jars and starting cars with cranking handles into the conversation. We're not sure what he is referring to, but he claims he can take one skin off and put another on in under 20 seconds!

### argent's KEYBOARDCHECK

**46**  
 The Demon of Digital Dexterity, Rod Argent, this month focuses attention on the amazing Yamaha CS80 polyphonic synthesizer and immediately falls in love.

### IN BRIEF

**48**  
 "Etherealise" your electric guitar with a Roland Chorus pedal, improve your technique with a new book on drumming, amplify your acoustic with the Di Marzio transducer—it's all here and more.

## Special Features

**20 How To Survive On The Road**  
Sax symbol Alan Holmes, of Kinks and Sounds Incorporated fame, re-enacts "Scott Of The Antarctic" and tells you how to keep warm and well whether you're trekking across the States or belting down from Bolton to Birmingham. I.M.'s "Universal Aunt" Judith Piepe advises you on what to eat, when not to drink and what to take if you smoke what you're not supposed to.

**28 Guild Competition**  
I.M. offers you the chance to win a fabulous Guild D-25 acoustic.

**54 Reed All About It**  
Alan Holmes bamboo-zles us by reporting on reeds, canes and sax - oral style.

**59 National Jazz Centre Planned**  
Big news for jazz fans. The Jazz Centre Society has already accumulated over £100,000 for a planned National Centre. With a bit of luck and a bit more money, you'll soon be able to scoot over for a quick scat session.

**60 Steel Appeal**  
Pedal steel expert Eric Snowball imparts some of his not-inconsiderable knowledge of knee-levers in the first of a series on pedal steel guitars.

**62 Crazy Kat**  
Eamonn Percival talks to a new band of vocal range rovers specialising in five-part harmonies.

**68 Microphone Survey**  
I.M.'s guide to choosing the right mike for your tonsils.



**76 The Pirates' Right-Hand Man**  
Eamonn Percival (what again? - Ed) speaks to the guitarist with the most powerful trio since (and before) Cream.



**122 Cat Competition**  
No, we're not flogging felines, we're offering a fabulous Cat synthesizer in the second giant competition this month.

**124 Build A Mixer**  
We're now into the fourth instalment of Mark Sawicki's do-it-yourself series on how to build a modular mixer.

**133 Talking 'Bout Generation**  
Sorry, Townshend fans, it's not a piece on The Who, but almost as good. David Lawrenson talks to Generation X about using different chords.



**136 The Hagstrom Story**  
Ray Hammond checks out the Hagstrom empire in Scandinavia.

**144 Making A Solid Guitar**  
Stephen Delft reaches part 10 in his much-praised course in building an electric six-string guitar, this time covering woods, glues, fret calculations.

**152 The Fylde Report**  
Many British folk artists know the name Fylde intimately and so David Lawrenson checks out what's happening up North.

**165 Dealer Of The Month**  
I.M. turns the spotlight on Funkshun in Northampton.

**Mike Evans**  
The MU's Rock Organiser this month talks about the "art for art's sake, money for God's sake" syndrome.

## Editorial

HOW MUCH bigger can I.M. get? That's a question readers and the music industry have been asking over the last year. The answer is: MUCH BIGGER!

This issue contains 212 pages. We don't think that's bad for 40p \$1.50, or whatever currency you pay in). But we've reached a point of no return. We cannot pack more pages into IM because we can't find staples strong enough to hold more than 212 pages. So next month all readers will get their usual 204 page issue of IM PLUS an extra issue containing American material absolutely free of charge!

We are now liberated from space restrictions. It means more good editorial coverage, more news, more reviews and more playing tips. IM is making publishing history by this move. No specialist publication has ever become such a force in its own field. We are proud that you have helped us achieve this in three years!

Next month sees the event of the music industry calender when all the international musical instrument companies gather in Frankfurt to show all the new products that will be reaching musicians during 1978. International Musician will be there in force. Our preview coverage of the show will be printed in English, Japanese, German, French and Italian and you can rely on us to present you with the fullest coverage and news of new products. Who's good to you?



Vol 3 No 12  
January 1978 (UK)  
February 1978 (International)

# CARLSBRO



# SOUND

# CENTRES LTD

## The Guitar Centres of the Midlands and South Yorkshire

### The amazing new Roland guitar synthesiser

### now in stock complete one only £1199

Gibson Les Paul De Luxe outfit . . . . .	£575	Gretsch Super Chet, cherry with case . . . . .	£695
Gibson Explorer outfit . . . . .	£565	Gretsch Country Gentleman outfit, walnut . . . . .	£549
Gibson Les Paul Custom 3 pick-up, Ebony . . . . .	£575	Gretsch Country Club outfit, sunburst . . . . .	£525
Gibson Les Paul Custom, Natural . . . . .	£595	Gretsch Tennessean, cherry outfit, S/H . . . . .	£339
Gibson Les Paul Custom, Ebony . . . . .	£495	Gretsch Rock-Jet, ebony outfit . . . . .	£399
Gibson S.G. Standard, Cherry . . . . .	£359	Gretsch Country Gentleman, walnut, old tasty . . . . .	£395
Gibson S.G. Standard, Tobacco Brown . . . . .	£375	Yamaha SG 2000, Sunburst, shop soiled . . . . .	£469
Gibson Les Paul De Luxe, Tobacco Brown . . . . .	£449	Yamaha SG 500, black . . . . .	£335
Gibson Les Paul De Luxe, wine . . . . .	£425	Yamaha SG 1000, sunburst . . . . .	£435
Gibson Les Paul Standard, Tobacco Brown . . . . .	£495	Musicman Stingray, sunburst . . . . .	£395
Gibson Les Paul, Double Cutaway, Cherry . . . . .	£459	Musicman Stingray Bass, black . . . . .	£395
Gibson Les Paul Special, Tobacco Brown . . . . .	£410	Kramer 250 G . . . . .	£339
Gibson Les Paul De Luxe, Cherry Sunburst . . . . .	£449	Kramer 450 G . . . . .	£469
Gibson, Stereo ES 345 TDC "62" S/H . . . . .	£449	Kramer 350 G . . . . .	£359
Gibson Stereo ES 345 TDC, cherry mint, S/H . . . . .	£475	Shergold Masquerador . . . . .	£159
Gibson ES 175 Sunburst Mint S/H . . . . .	£475	Shergold Meteor . . . . .	£145
Gibson Melody Maker, Cherry . . . . .	£399	Shergold Masquerador, 12 string . . . . .	£175
Gibson G3 Bass Natural . . . . .	£235	Shergold Marathon, bass . . . . .	£185
Gibson Grabber, Bass Ebony . . . . .	£249	Kramer 450 G. Bass . . . . .	£495
Gibson SG Standard L/H, Cherry Bigsby S/H . . . . .	£295	Kramer 650 G. Bass . . . . .	£595
Gibson Firebird outfit, mint . . . . .	£550	Rickenbacker basses, blue, black, wine, 4001 . . . . .	£395
Gibson Thunderbird Bass outfit . . . . .	£495	Rickenbacker, basses, custom, white, natural . . . . .	£445
Gibson SG Custom walnut v. good S/H . . . . .	£449	Hagstrom Jimmy, one only . . . . .	£275
Fender Strats, all colours, m. neck and trem . . . . .	£295	Hagstrom Swede, natural . . . . .	£275
Fender Strats, all colours, Rosewood neck, trem . . . . .	£275	Just a small selection of copies in stock	
Fender Teles' rosewood neck . . . . .	£220	Grant Les Paul Customs, sunburst . . . . .	£95
Fender Teles' maple neck . . . . .	£229	Grant Les Paul Customs, ebony and case . . . . .	£99
Fender Teles' customs . . . . .	£259	Grant Telecaster, rosewood, sunburst . . . . .	£89
Fender Teles' De Luxes . . . . .	£299	Grant Stratocasters, black, white, trem . . . . .	£95
Fender Stratocaster outfit, natural . . . . .	£375	Grant Jess Bass, sunburst and case . . . . .	£99
Fender Precisions, rosewood neck . . . . .	£235	Maya Stratocaster, natural, m. neck . . . . .	£105
Fender Precisions, maple neck . . . . .	£255	Melody Marauder copy, natural . . . . .	£92
Fender Jazz Basses, rosewood neck . . . . .	£275	Meldoy Grabber, bass, natural . . . . .	£103
Fender Jazz Basses, maple neck . . . . .	£295	Maya Ricky Bass, natural . . . . .	£157
Gretsch Super Rock Atkins, new model cherry . . . . .	£595	Hondo Ricky bass, fireglow . . . . .	£94
		CMI Telecaster, black, m. neck . . . . .	£116
		CMI S.G. standard, cherry . . . . .	£129

Also vast stocks of Acoustic Guitars. Above is only a small selection of Electric Guitars in stock. Many more S/H! Write for details.

ALL GUITARS AVAILABLE THROUGH EITHER CENTRE.

Mail Order a speciality. UK and EUROPE' FREE DELIVERY (UK only). 10% Deposit Credit up to 3yrs to pay

Registered Office  
182/184 Chesterfield Road North  
**MANSFIELD**  
Telephone 0623 26199/26976

PLEASE PHONE  
FOR FURTHER DETAILS  
Barclaycard and Access welcome.

13 Berkley Precinct  
**SHEFFIELD**  
Telephone 0742 663862

# ITA


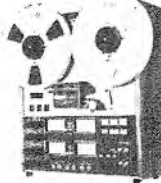
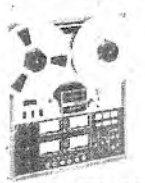
THE ONE STOP SHOP

## PRICE GUARANTEE






Our prices are rock bottom. If you find lower we refund difference.


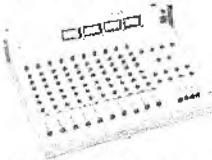
PART EXCHANGE

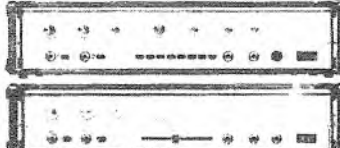
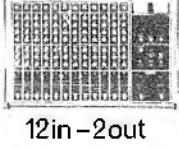
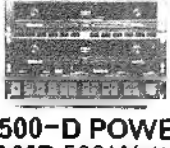
FINANCE HIRE

	<b>A234 OSXH</b> 3 3/4 + 7 1/2 or 7 1/2 + 15		<b>A334 OSX</b> 7 1/2 + 15		<b>A334 OS INDUSTRIAL</b> LOW NOISE INDUSTRIAL VERSION 7 1/2 + 15	<b>TEAC</b>
---	---	---	-------------------------------	--	---	-------------



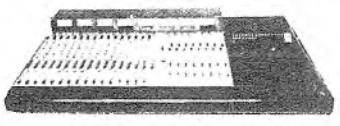
	<b>8 TRACK</b> CONSOLE £2040		<b>COMPRESSOR LIMITER</b> £250	<b>ITAM</b>
		±50% Varispeed servo control Low noise. Full sel sync £1890 Portable		VARIABLE SLOPE AUTO RELEASE. A must for accomplished recording engineers


	<b>A.77</b> 3 3/4 + 7 1/2 £411		<b>HS.77</b> 7 1/2 + 15 £450		<b>VHS.77</b> 15 + 30		<b>B.77</b> VARIABLE SPEEDS		<b>A.700</b> 3 3/4 + 7 1/2 + 15 £875	<b>REVOX</b> OVER 400 VERSIONS
---	-----------------------------------	---	---------------------------------	---	--------------------------	---	--------------------------------	---	---	-----------------------------------

	<b>3.77</b> BEEFED UP VERSION OF A.77 WITH 3 SPEEDS 3 3/4 + 7 1/2 + 15 MOTION SENSING		<b>10.4 THE QUIETEST MIXER AVAILABLE. LIMITERS-3 BAND EQ FOLDBACK ECHO-MONITORING</b> Plug in electronic 10in 4out £690	<b>ITAM</b>
--	--	--	--	-------------

	<b>MULTI ECHO</b>		<b>SLIDER ECHO</b> 12in - 2out		<b>S500-D POWER AMP</b> 500 Watts	<b>H+H</b> THE MUSICIANS CHOICE
---	-------------------	---	-----------------------------------	---	-----------------------------------	------------------------------------

	<b>8 TRACK MODEL 5</b> 8in - 4out		<b>MODEL 3</b> 8in - 4out		<b>MODEL 2</b> 6in - 4out	<b>TASCAM</b> FOR THE PRO USER
---	-----------------------------------	---	---------------------------	---	---------------------------	-----------------------------------

	<b>SD12</b> 12in 2 out		<b>PRODUCTION MIXER</b>		<b>MODULAR 16x8</b>	<b>ALLEN + HEATH</b>
---	------------------------	---	-------------------------	--	---------------------	----------------------

	<b>STEREO</b> £465	<b>ORBAN PARASOUND U.S.A.</b>
THE FINEST STEREO ECHO UNIT FROM U.S.A. ANTI-TWANG LIMITERS, BANDWIDTH CONTROL, STRICTLY PROFESSIONAL UNIT.		

<b>3M · AGFA · AKG · TRIDENT · AUDIO DESIGN · OTARI · AMPEX ·</b>		<b>QUAD</b>
	£145 CURRENT DUMPER	

CONTACT: JIM NELSON 01-724 2498  
ALL PRICES WITHOUT VAT  
Easy parking by Marylebone Station

# ITA

1-7 Harewood Avenue  
Marylebone Road  
London NW1



# WOODROFFE'S ROCKEX 78 EXTRAVAGANZA

The Birmingham music scene is in for a treat early in the New Year when Woodroffe's, one of Birmingham's most popular music stores, launches Rockex 78, a music instrument extravaganza which will be held for three days in Birmingham's Top Rank Suite on January 8,9,10.

The event is the brainchild of Woodroffe's boss Mike Woodroffe who has galvanised at least 30 top manufacturers into bringing their products together in one massive showcase and promotion.

'It's not a trade show,' Mike has promised. 'It's for musicians to see what equipment is available from a lot of manufacturers and it will cover all aspects of group equipment. Rockex will be a mammoth retail promotion with demonstrations throughout and people will be able to see just what is available'.

Practically every major name in the industry will be represented at Rockex 78 and such an event can only be to the benefit of musicians who will have a free hand to try out products without any sales pressure to buy.

Everything from guitars, drums and keyboards, to mixers, amps, and effects pedals will be shown at

the Rockex gala. You can expect to see all the latest gear from such famous names as: CBS Arbiter, Peavey, Rose Morris, Brodr Jorgensen, Carlsbro, Custom Sound, and Strings and Things to name but a few of the exhibitors who will be at Rockex 78

Guitarists will be able to get to grips with the splendid axes from Hagstrom, Ovation, Fender, Music Man, Yamaha, Tama, Travis-Bean Kramer and Ibanez. And they will be able to plug into amplification by Peavey, Roland, MM, Custom Sound, Carlsbro, Fender, Music Man and more

Of course keyboard players have not been forgotten at Rockex, and whether you play pianos, organs or synthesizers, there will be something for everyone at Rockex.

There will be synthesizers and pianos, both electric and acoustic, from ARP, Hohner, Korg, Roland, Yamaha and Rhodes plus the terrific Cat synthesizer from P.K.P.

Woodroffe's sister company Drumland is making sure that drummers will be kept happy with all the top percussion gear readily on hand.

This naturally means names like

Slingerland, Premier, Olympic, Rogers, Ludwig, Auto-Tune, and Paiste will display their kits.

An exhibition like Rockex 78 will not only give musicians a chance to see at first hand this incredible display from the music instrument industry, but will also give musos the chance to save substantial amounts of money. This is because special discounts are being offered by some manufacturers to customers who order their new year equipment at Rockex. So now you will be able to try out that instrument you've been after without committing hard-earned funds to it first and you can save something in the process.

Once you've bought your instrument why not hook it up to one of the many effects that Rockex will give you the chance to try out. Did you know Carlsbro have a whole new range of effects pedals while Bell Electrolabs will be unveiling their exciting new modular effects system for the first time at Rockex.

All in all, Rockex will be a feast of equipment the Midlands has not seen for some time.. All credit to Woodroffes and Drumland for making this festival available to musicians.



# Billy Cobham – THE WORLD'S No.1 DRUMMER

**PLAYS** THE WORLD'S No.1 DRUMS

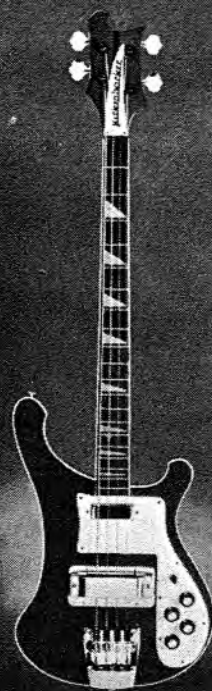
 **TAMA**



SEE THEM TODAY AT YOUR DRUM STORE  
EXCLUSIVE DISTRIBUTION UK  
SUMMERFIELD, GATESHEAD NE8 3AJ.

 **TAMA**<sup>®</sup>  
SUPERSTAR

# Rickenbacker



**"IT'S THE MODERN WORLD"**

SOLE U.K. DISTRIBUTORS OF RICKENBACKER

WING AMPLIFICATION:  
15-15A LONDON ROAD,  
BROMLEY, KENT.  
01-464 3190

## Reach for the sky... its just a touch away



There comes a time for every musician when only the best will do, the best, but not necessarily the most expensive.

Some of the top retailers in the country assure us, that after much time and effort, we have produced, two of the best effect pedals on the market today.

**Resounder I** Delay/Echo Unit. £69.00 Retail inclusive.

This pedal uses advanced technology micro-circuits and will produce numerous delay and echo effects. Everything from tight delay, through reverb, to that long, "shouting down the mountain" echo.

**Resounder II** Flange/A.D.T. Unit. £69.00 retail inclusive.

Once again advanced micro circuits enable this pedal to produce the sweetest, deepest flange sound you have heard to date and the added facility of varispeed automatic double tracking, is a must for both guitarists and vocalists alike.

Both pedals have stereo facilities and can be used in conjunction with mixing desks, an application sometimes lacking in effect pedals, but we feel, one that is essential to the professionally minded musician.

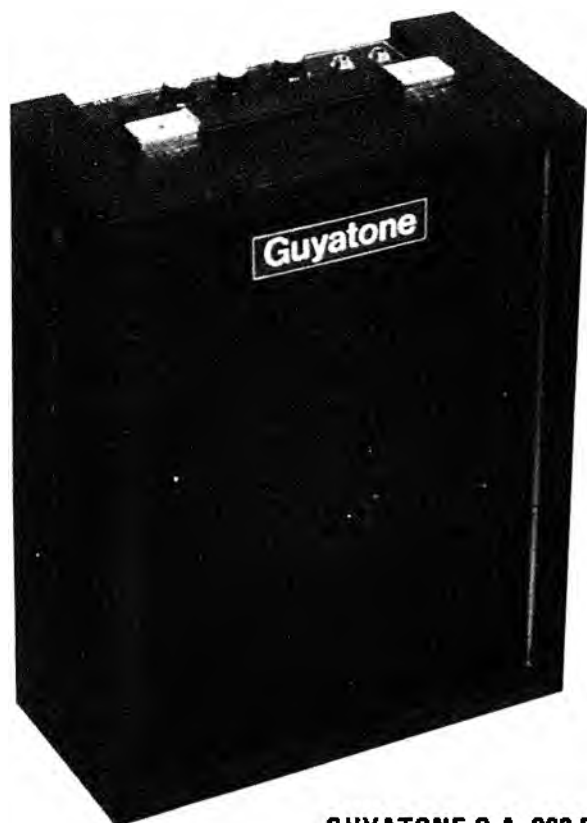
We've launched the Resounders, they're taking off in a big way.

So check them out for yourself, we hope they will help you reach new heights.

For further details contact your local stockist or  
WING MUSIC 15/15a LONDON RD. BROMLEY, KENT. TEL: 464 3190

# GUYATONE & MERLIN

## BEGINNERS KIT



### Special Offer!

FOR BOTH PIECES INCLUDING  
POST & PACKING

# £73.69

INCLUDING VAT

GUYATONE G.A. 280 5 Watt R.M.S.  
PRACTICE AMPLIFIER

RETAIL PRICE INCLUDING  
POST & PACKING £54.94p

MERLIN E.G. 101  
ELECTRIC GUITAR

RETAIL PRICE INCLUDING  
POST & PACKING £28.35p



	PRICES
<b>MERLIN ELECTRIC GUITAR</b>	
E.G. 101	£25.46

**WELSON ELECTRIC GUITARS**  
SOLID BODY

DYNO 11	£102.51
VEDETTE	£115.22
SUPER JAZZ	£134.26
RED FLAME	£110.12
BLACK PEARL	£120.28

**THIN BODY**

CARAVEL	£105.00
DS/2T	£125.38
DS/ARTIST	£139.35

**BASS ELECTRIC**

SPECIAL BASS	£152.08
BLACK BASS	£122.85
D/S BASS	£120.28
STARFIRE BASS	£87.24
RED BASS	£115.20

**GUYATONE AMPLIFIERS**

GA 280 (5W)	£47.58	GA 680 (60W)	£165.80
GA 380 (10W)	£64.97	GA 880 (100W)	£234.00
GA 480 (20W)	£90.36	GA 1050 DR (50W)	£279.45
GA 580 (50W)	£127.17	GA 1100 DR (100W)	£309.58
GA 580 b (50W)	£149.60		

**POST AND PACKING ON  
AMPLIFIERS £7.36**

**PHASERS**

GUYATONE PS 101 £24.24 each

COMPLETE COUPON DETACH AND POST TO:  
SOLE UK DISTRIBUTOR  
**WOODS (PIANOS AND ORGANS) LIMITED,**  
15/17 Manchester Road, Bolton, Telephone: 0204 271171  
PLEASE SEND TO ME MY BEGINNERS KIT, I ENCLOSE CHEQUE/POSTAL  
ORDER FORM & £ TO COVER COST OF GOODS, POST  
AND PACKING. (ALLOW 14 DAYS FOR DELIVERY).

NAME +  
ADDRESS

## Parasites And Parrots

Dear Sir: In reply to Mr. McFadyen (Letters, November) — congratulations ~~for~~, you have written probably the most damaging letter I have ever read on your kind of music, and you have the cheek to ask for respect (RESPECT is a thing that's earned and, with the comments you came out with, it's little wonder it's not forthcoming). Even your fellow musicians will no doubt see how childish your remarks were.

I am, for Mr. McFadyen's benefit, going to put into one line what it took him a whole page to say ... "I hate rock groups, discos and anyone who disagrees with my taste in music ... I am the greatest". There you go, sir. It's sharp, to the point and is cheaper on stationary.

I am a "parasite", a "talentless bastard" and run a "souped-up gramophone" and proud of it. I don't ask for respect 'cos I enjoy playing my discs too much to stand up and say "Hey, you guys respect me 'cos I am making you happy". Respect doesn't come in the shape of pound notes. People ask me to play my discs at their parties and pay me for doing so. Surely it's their choice!

I have no axe to grind with musicians but I think it is far more pleasant to hear the original discs than, and I quote Mr. McFadyen, to "draw a huge stock of material from LP tracks by The Doobie Brothers, Eagles, SAHB, Stretch, Beatles ..." Need I continue? (Parasites?)

Sorry to carry on so but our friendly, middle-aged punk annoyed me. I suggest someone up there in Scotland gives him a hefty kick in the "Gorbals".

Thanks for a great magazine even though I am one of the unfortunates that can't play a note on any instrument.

Bob Clifford,  
Little Sir Echo,  
Surrey.

*Phew! THAT letter certainly attracted some attention. Let's face it. There are parasites on both sides of the fence, just as there are good entertainers. With many bands playing "unoriginal" material note for note and many DJ's sounding like Blackburn, Edmunds, Saville etc., there are also a few parrots. There is room for both bands and discos — let's just share it around a bit more.*

## Horror Down Under

Dear Sir: As an Australian musician and a regular reader of your magazine, I decided to put down my beloved Gibson S.G. for a short time and commend you on the high quality of the reviews of band equipment which appear regularly in "International Musician and Recording World". Even though I receive your magazine some two months after publication, it provides myself and my musician friends with a fantastic guide to the new equipment available on the international market.

I am constantly impressed with the excellent sales and after sales service offered by music dealers in Britain to their customers. Such service is sadly lacking here in Australia and one is often obliged to pay superfluously high prices for repairs and maintenance. As an example, I recently sent my Gibson S.G. away to have the Bigsby tremolo unit removed (the inventor of this tremolo should have won a bad taste award) and, after three long months of waiting, I received back my axe, covered in dust and with a different coloured lacquer applied to the top. The price — \$180 Australian!

The original quote was, \$40 but, as most dealers here seem to believe musicians are simply the way to a fast buck, I was left out in the cold with an instrument looking like a suntanned Malteser! Such disgraceful service is surely unforgivable.

I would like to see some reviews on new examples of traditionally favourite instruments such as the Tele, Strat or S.G. I am hoping you will publish this letter as I am sure many musicians would enjoy reading reviews of their favourite axes. Thanks once again from the Land of Oz for a fine publication.

Philip McKnight,  
Grafton, N.S.W., Australia.

*Thank you for your kind comments on the magazine and we're sorry to hear of your misfortune with your S.G., especially on such a simple operation. Regarding reviews of "traditional" guitars, we do occasionally review old faves. In past issues, we have included a Tele, Strat and others in our Guitar-checks but, obviously, new models and makes must take preference.*

## Best of Both Worlds

Dear Sir: You recently invited views on the "recorded music versus live music" argument. I am a self-employed electronics engineer and disco operator and I work the latter with a serious semi-pro band. The band provide the more superior form of musical entertainment viz. live music, while I provide the all-essential variety of subtly-mixed soul and rock played to an audience of varying musical tastes in a way which would defy the most versatile band. In essence, live music is preferable but only with recorded music can variety be obtained and spontaneity of mood and style be matched to the whims of an audience.

There are advantages inherent in this operation. If equipment is compatible, the risk of a ruined gig through breakdown is minimised. We both tend to get more gigs than when we worked separately because we make it a case of "If you want the disco, why not the band, too?" and vice versa. Further, the band cut out their costs because they don't need to employ an engineer since I am able to take on this role. Thus, the audience get the best of both worlds and more work is ensured for my musician colleagues — which is better than no work at all.

I am aware that my solution is possibly impractical in anything bigger than pub and club gigs but at least I try to compromise at my own level; musicians are my equals — we both have to work the rigours of the road and we both have our intrinsic advantages which, mutually combined, aid everybody.

I agree wholeheartedly with Roger James' views on the inadequacies of the PRS system as it stands. Incidentally, I read in the "Public Use of Sound Recordings", issued by the PPL, that "It is not our policy to authorise the public use of sound recordings for specifically featured musical entertainment such as dance and discotheque sessions unless reasonable employment opportunities are also offered to musicians". Presumably, there is insufficient control on the issue of such authorisation?

Ben J. Duncan,  
"B&J Sound" and Benny and the Jays  
Discotheque, Lincoln.  
*Thanks for an interesting letter. The teaming up of DJ and band is an excellent idea and is obviously beneficial to both parties. I think, however, many musicians would disagree when you claim "musicians are my equals". To be*

*fair, most musicians have spent many years learning their particular instrument to be able to actually perform onstage whereas it is relatively easy for anybody who fancies becoming a working DJ to actually become one in a much shorter time. More power to your elbow 'though.*

## Guitar man

Dear Sir: I have followed the series of "Build A Solid Guitar" with great interest and have found it invaluable in understanding the basics of guitar building. I have always been very interested in the art of guitar construction, and wish to become more involved in it.

If possible, could you give me some information on how you came into the craft, and any advice which you can give to allow me to follow up my interest in the subject.

Ross Mackenzie,  
Kirknewton, Midlothian.

*Stephen Delft replies: I enjoy making and repairing guitars. It's hard work most of the time, but not a bad way to live. I started by reading a lot of books, and making instruments from the instructions therein.*

*I would always recommend as a first book (for steel-strung guitars) John Bailey's book on making a folk guitar. It's published by the English Folk Song and Dance Society, in London's Cecil Sharpe House, and I believe you can obtain it from Foyles by post. Also, if you want to take it seriously you will need to go either to the United States or Germany, and purchase books printed in either or both of those countries.*

*There are not enough people interested in making guitars to make a request to your local public library to buy the books worth their consideration. You might start with "Die Gitarre und ihr bau" by Jahnel, published by Verlag "Das Musikinstrument", Kluberstrasse, Frankfurt Am Main. It's only available in German, so you'll need to learn German! Most guitar makers speak English or German. Also, look at Guitar Player magazine, who are agents for several interesting books on guitar instrument making.*

## Junior guitar maker

Dear Sir: I am beginning to find Stephen Delft's article "Making A Solid Guitar" a little too advanced for the likes of a 14-year-old like me, so I was wondering if it would be at all possible to fit a pick-up on my old acoustic guitar. As well as that I could add a volume control knob and perhaps two pick-ups.

I would also like to make a suggestion that when your article ends you could write an article called "Making A Guitar Amp".

Ian Sutton,  
Gateshead, Tyne & Wear.

*Stephen Delft replies: You could put pick-ups on your acoustic guitar, but you don't say what guitar you have. If it has a round soundhole, it would be easiest to fit a De Armond, some of which have volume and tone controls built in. The Japanese copies of this type are nowhere near as good — the cheapest De Armond is good, although the next one up in line, with adjacent magnetic poles, is, in my opinion, better value, particularly if you're using it with acoustic guitar strings. If you have a cello-bodied guitar, then Summerfields import a nice pick-up from Bill Lawrence. Your request for an article on making a guitar amp may already have been answered by "Build A Small Guitar Amp" (February 1977). There may be designs for larger amps on the way.*

# We're gonna do it all over again!

Remember the hot, heady rockin' days of the 50's and 60's? Remember Hofner...the name that raised the roof in the music revolution of our times?

Well, we're back in the U.K. with new sounds for the 70's rock revival. 18 great guitars for the new rock era...we're gonna do it all over again!

You can create the sensational new Hofner sound in music stores all over the country. Or post off the coupon below for your own free collection of the latest full colour Hofner Catalogues and up to the minute price details.

Yes, good times are comin' back again...make the most of them with Hofner.



Barratts of Manchester Ltd. Wholesale Division,  
(Sole U.K. Distributors of Hofner Musical Instruments)  
Tel: 061-872 0713

Write to: Barratts of Manchester Ltd. (Dept. 100) The Aron River  
100 Victoria Road, Manchester M14 6JG  
Please send me the full colour details of the complete  
Hofner product range. (S&L)

Name \_\_\_\_\_  
Address \_\_\_\_\_

# EFFECTS *part 5*

## Reverb, Echo and ADT

by Stan Wilson

Reverb was first encountered in concert halls where the layout and furnishings produced the effect of causing sound waves to reverberate.

Take the case of a guitar amp placed in a village hall or some other equally stimulating environment. The sound emanates from loudspeaker vibration and can be reflected by any hard surface. Therefore the performers and audience alike hear a combination of direct sound (i.e. straight from the loudspeaker) and reflected sound (i.e. sound that is 'bounced' back from floors, walls and the ceiling).

Diag. 1: Obviously the reflected sound has travelled further than the direct sound and will be heard later due to the speed of sound transmission in air thus creating reverberation. The reverb time of a concert hall can be an enormous drawback as the sound of the whole band becomes muddled and confused by excessive reverberation. However, reverb in guitar amps is a pleasant effect and, when instantly controllable, adds to the 'liveliness' of the sound.

Spring-line reverb has been fitted to amps for many years. The guitar signal is passed along a pair of springs which vibrate slightly and delay the sound to the required degree.

\* The spring is "driven" (i.e. vibrated) by a sonal audio transducer. The transducer consists of a coil with a mechanical connection to the springs. Basically, a transducer is a device for converting an electrical signal into a mechanical movement or vice versa. At the other end of the spring is another transducer the movement of the spring is then converted from a mechanical impulse into an electrical signal again. The amount of reverberation is a function of the length and natural elasticity of the spring.

Of course, those mystical I.C.'s, bucket brigade or serial analogue delays can now be employed to replace spring lines. It will be interesting to observe the controversy which will doubtless result amongst reverb aficionados as to their preference for either spring-line or solid-state.

The drawbacks with spring-line reverb are twofold, the frequency response is limited and noise can be picked up by the spring (i.e. the drums) which can produce vibrations in the spring-line, which are transmitted through the floor.

The difference between echo and reverberation is basically the delay time (which is greater) to produce echo. With echo, of course, repeats can be heard which give a "cosmic" cathedral effect.

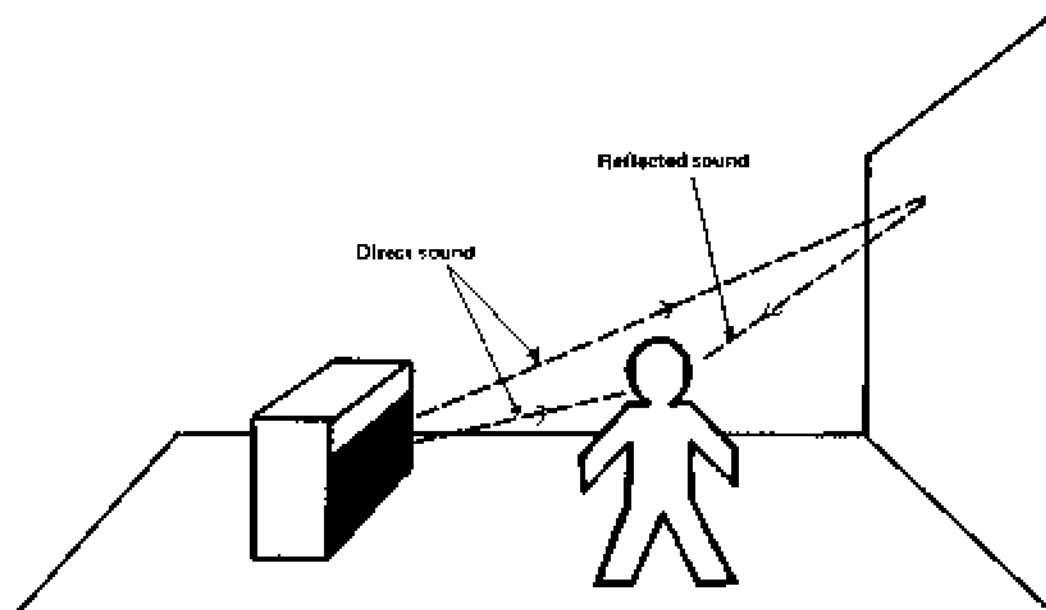
Echo is commonly produced by tape

units. The process is relatively simple: the guitar is recorded on a tape loop and then played back by a line of tapeheads. (Diag. 2). The time taken for the tape to travel from the record head to the replay head produces the delay or repeat, depending on the distance between the 'heads'. Some tape echoes allow for variation of replay head distance, others allow selection of various replay heads to produce the delay and repeats required.

Obviously, an electromechanical device of this nature is costly and bulky and the tape loops or cassettes are subject to considerable wear. However, some of the excellent sounds of tape echoes will be around for some years but, as is the case with reverb, the analogue delay I.C. will supercede them. In recording studios, an echo plate is sometimes employed instead of studio tape machines. An echo plate is a large metal plate which is "driven" by high quality transducers. It is used for reverberation and is capable of producing a very clear sound.

As we have discussed the 'setting up' of the bucket brigade or analogue delay IC in previous articles (where it was used in more complex devices, such as flangers or chorus tremolos), we should not ignore it now. The clock waveform for echo is not modulated but its frequency

Diag. 1 Reverb



can be varied manually as this controls the delay time.

To obtain a good bandwidth, a solid-state echo will need several of the IC's or it will be subject to 'clock waveform noise' when set to a long delay. If we have an echo unit using four of the IC's we'll have four repeats available at different delays. Obviously, the original signal has to be mixed with the delayed signal, as in flanging, but because the clock waveform is not being modulated, flanging will not occur. To obtain reverb on the delay, instead of repeat, the delayed signal can be fed back to the input of the delay line.

There has been a lot of talk recently about ADT (Automatic Double Tracking). As yet, to my ears, there are no convincing ADT's on the market, but it is an

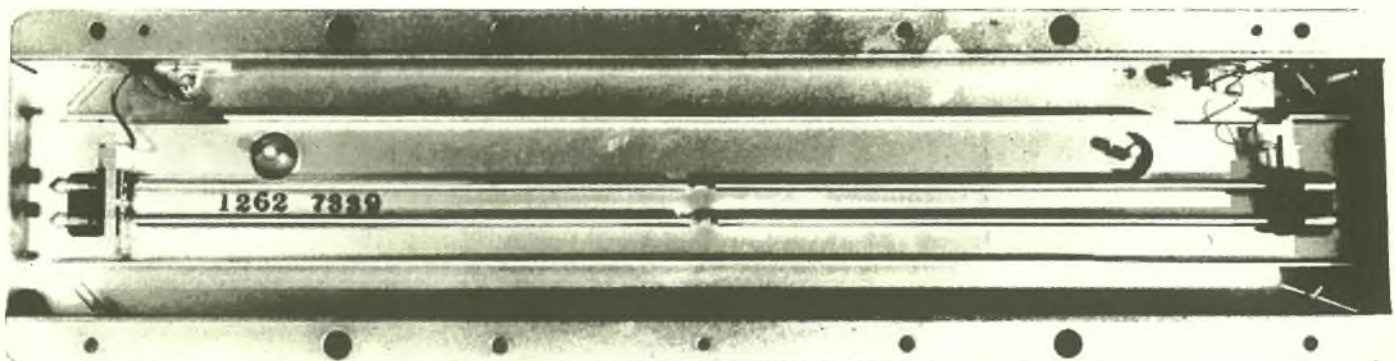
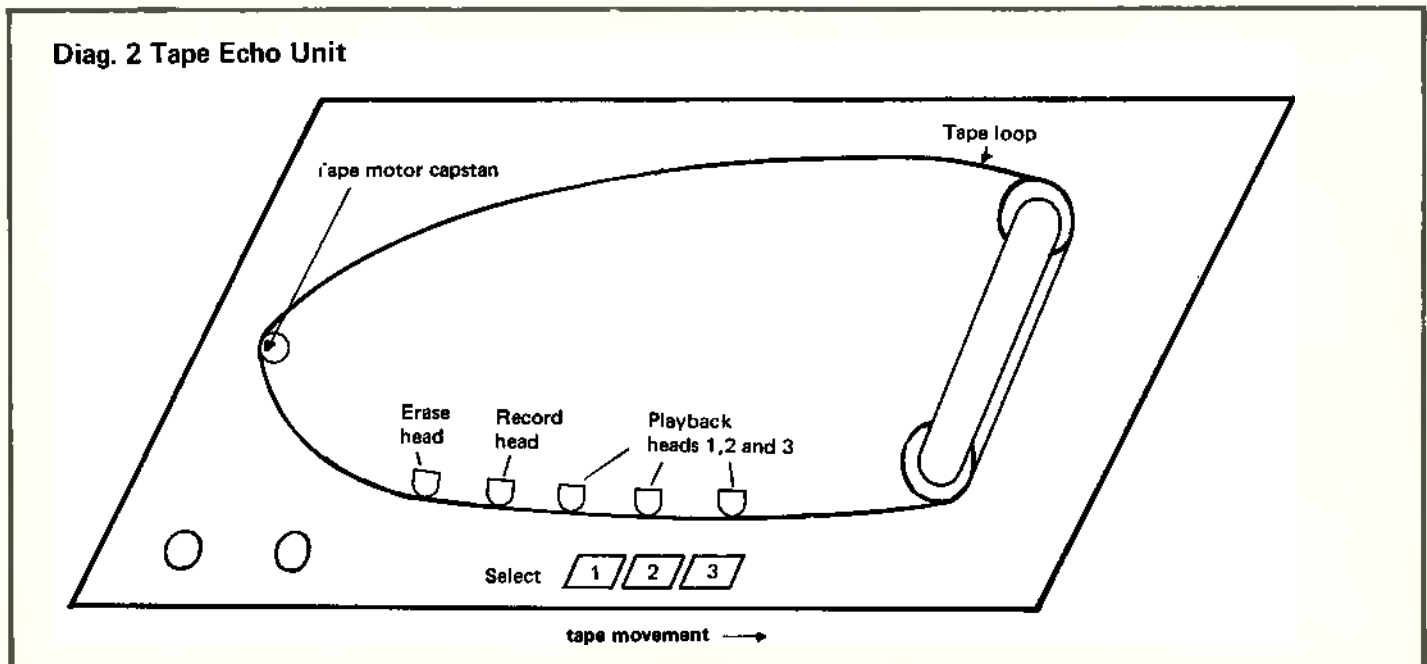
extremely nebulous sound, because of recording techniques. Obviously in a studio double tracking can be achieved by almost limitless methods i.e. (1) Re-taping the riff with the first take, relying on the guitarist's skill to get the desired effect. (2) Utilising a short delay time to thicken up the riff slightly, possibly using a vari-pitch controller to provide the slight pitch change which is necessary. (3) Using solid-state echo plus back ground flanging and mixing with the original, thus achieving the required delay and pitch change.

OK, so what exactly is ADT? With the differing methods of achieving a double-guitar sound, it is impossible to define what it should sound like, other than two guitars playing the same riff. When two guitarists attempt to play

the same riff they cannot play exactly in time. That is, your ears can detect that incredible thick sound, now if the guitarists had played "exactly" in time that effect would not be present. Therefore, to produce ADT, a designer needs to start with a short delay time only 10 to 20 millionths of a second. Our ears can actually detect that delay!

Of course, ADT can be employed for vocals. Many bands are now using flangers discreetly to enhance their vocals. Just imagine a vocal doubling effect though! Two voices for the price of one. It will be easier for the designer to achieve convincing ADT on voice, because the voice can be processed to wider pitch changes than would sound right on an instrument!

Diag. 2 Tape Echo Unit



Reverb springs

noise gate  
power earth  
on in  
threshold  
IN OUT  
**GIANT MOUSE**  
noise gate  
active D.I. box  
[mic line]

One of a superior range of effects units from **PRO AUDIO**  
Unit F, New Crescent Works,  
Nicoll Road, London NW10 9AX.  
Tel: 01-961 1425/3295

Noise Gate £48.55

*Are you man enough to handle our mouse?*

# SE PA SYSTEMS

**THE ONLY JBL FRANCHISED AGENTS IN THE MIDLANDS**

Large supplies of JBL speakers, flares, compression drivers now in stock, together with a complete spares and re-cone service. Trade Discounts available. Enquiries welcome.

**Amek agents for professional studio and road desks**

**Total Audio concepts 16-2 and 12-2 professional mixers always in stock.**

**The only choice of desk for the professional band with a small budget.**

**RSD**

Professional Stereo power amplifiers, Britains answer to Amcron half the price.

**MM FRANCHISED DEALERS**  
Mixers, Amplifiers always in stock

We stock and supply a full range of P.A. components including AKG, Amek, ATC, Beyer Beldon, Cannon, Electro-voice, JBL, MM, Pro-Audio, RCF, RSD, Shure, Turner.

All at competitive prices.

**Flight cases and enclosures built to order large top quality PA hire department.**

## SIGMA SOUND ENTERPRISES

John Penn 0602 73306  
12 Sandringham Drive,  
Bramcote Hills,  
Nottingham.

# RUMBELOWS MUSIC 'READING'

**£10.00 CASH DISCOUNT**  
This voucher entitles you to a £10.00 cash discount on any products over £100.00 R.R.P. in our Music Shop

THIS IS JUST ONE OF OUR MANY NEW YEAR OFFERS. MANY UNBELIEVABLE PRICES ON ITEMS IN OUR RANGE OF:-

Phone for more details.  
Ask for **Martin or Steve**  
Reading (0734) 55361

# RUMBELOWS

SWITCHED-ON BARGAINS FOR THE NEW YEAR!

**138/141 FRIAR STREET READING, BERKS.**



# STAR QUALITY

# 10

# The "Most" Yamaha goes to Mickie



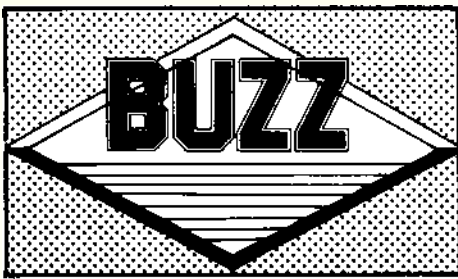
Mickie Most thinks the Yamaha GX1 has real Star Quality. The giant £40,000 plus "Ultimate Synthesizer" was installed in his Rak Studios in London last month.

Mickie is the third important music business star to take delivery of a GX1. The first was Stevie Wonder — "My Dream Machine" he called it after he used it exclusively on his epic album "Songs In The Key Of Life" — the second was Keith Emerson.

The Yamaha GX1 is the test bed of Yamaha Technology. Spin offs from this project have been utilised in the new ranges of Yamaha home organs and professional musical instruments.

**Yamaha makes more music!**

 **YAMAHA**  
Craftsmen to the world's  
musicians since 1887.



compiled by Eamonn Percival

**Hard-Up Heroes** are a four-piece from Preston, Lancashire, who are hoping to be a fully pro band by the summer. The band — Paul Dykes (lead vocals), Nig Richards (guitar/vocals), Terry Cahill (bass/vocals) and Rob Remington (drums) — play about 80% original material interspersed with numbers by Graham Parker, Dylan and Stretch, but they aim to feature 100% original songs in the near future. They tell us that one of their main song-writing inspirations is schoolgirls — tell it like it is, lads. They are currently recording demos and are willing to accept gigs anywhere in the country. Their manager is Gary Knight of Live Music Promotions (Preston 53926) ... Down the road a piece to Lichfield, Staffs, we hear of a hard rock band called **Vortex** who are currently doing the round of pub gigs in the area, notably the Prince Of Wales. Apart from doing the rounds, the band also occasionally get a chance to play. Their line-up is Ian Threifal (guitar), Anthony Jones



Samson

(guitar), Chris Dodgson (drums) and Martin Hogarth (vocals) ... **Samson** are a three-piece band based in South London and are currently seeking management and, presumably, gigs. Paul Samson plays guitar, harmonica and sings lead vocals, Chris Aylmer sings and plays bass and Clive Burr handles the drums. They describe themselves as a high energy rock/boogie band who play mostly original material. If anyone's interested, contact Paul Samson on 01-859 3827 ... Merseybeat still rules. **Eleanor** are a young (16 to 18) four-piece band from Liverpool currently working the "scouse houses". Their line-up is: Alan Redmond (guitar/vocals), Jon Corner (rhythm guitar/vocals), Chris Leigh (bass/keyboards) and Roy Martin (drums). The band have recently acquired management in London who financed a film about the group and their own music which ranges from progressive

to heavy rock. They also recently recorded an EP, again financed by their management, and are looking for gigs anywhere in the North West. Guitarist Alan Redmond can be reached on 051-228 3228 ... **The Artful Dodger Band** operate from Harlow in Essex and have been together for eighteen months. Influenced by bands like Gentle Giant, Focus and Caravan, they write their own material and, although working mainly in pubs and clubs, they recently played support act to The Rods in Harlow Town Park. They are now trying to break into the London circuit but are also looking for work anywhere in England. Their manager is Mike Domeney and his number is 01-636 0611 ...

**BUZZ is your column. Send all information about your band addressed to: BUZZ, International Musician, 7a Bayham Street, London NW1 0EY.**

# GIANT COMPETITION WINNERS

The response to our September/October Giant Competition has been overwhelming and it was a difficult job to pick the winners.

Major prizewinners were Fiona Tickner from Sidcup, who won the Custom Sound 700BM amp, John Green from Macclesfield, who walked away with the Pearl Maxwin kit, David Steel from Ascot who won the Yamaha SG1500 guitar and Peter MacDonald from Rochdale, who is now the proud owner of a Roland EP20 electric piano.

In the runners-up section, a Eurotec Traveller amplifier went to Roberto Soave from Dundee and Ian Moore from Chicester won the Colorsound Supremo wah-wah pedal. The Carlsbro effects units went to Andy Riley from Darlington (Flanger), Robert Crompton of Epsom (Phase II) and Steve Land from Louth (Wah-Suzz).



(1) At the prizegiving: (left to right) Ray Hammond (Editor of IM), Malcolm Green (Promotion Director of IM), Dick Rabell of Carlsbro, Glyn Thomas of Norlin, Steve Land, Gerry Evans of Norlin, John Green, Fiona Tickner, Art Marsh of Yamaha, Barry Phillips of Custom Sound, Mrs. MacDonald, David Steel, Peter MacDonald, Rick "It's Not Easy" Desmond (Ad Director of IM), Larry Macari of Sola Sound and Fred Meade of Brodr Jorgensen.

# Expanding the Boundaries of Creativity

New levels of musical imagination present themselves to the creative musician with the application of the MXR Digital Delay. The diverse effects offered by the Digital Delay, when used with individual instruments, vocals, PA and recording mixes, offer a whole new range of musical creativity.

The MXR Digital Delay gives the musician a tool for creative application that is unparalleled in versatility, precision and ease of operation. The MXR Digital Delay is designed for a wide variety of applications including; amplified musical instruments, vocals, PA and recording mixes. The basic unit delays a sound between 0.08 milliseconds and 320 milliseconds, fully variable while retaining the dynamic range of the program source. The delay range is expandable to 1280 milliseconds in increments of 320 milliseconds by means of up to three additional plug-in memory boards. These boards are available from MXR and may be installed by the user.

Effects that can be obtained with fixed time delays include echo, vocal doubling and hard reverberation. The MXR Digital Delay contains sweep circuitry which allows additional effects such as flanging, vibrato, pitch bending and frequency modulation. The MXR Digital Delay is also capable of repeat hold (infinite non deteriorating regeneration).

Rack mountable for sound studio installation, it is also available with an optional road case for onstage use or location recording mixes.

MXR's Digital Delay can lead the way to new possibilities in creative sound at a price considerably lower than any comparable delay.

For more information see your MXR dealer. MXR Innovations, 247 N. Goodman St., Rochester, New York 14607, (716) 442-5320. Distributed in Canada by Yorkville Sound Ltd., 80 Midwest Road, Scarborough, Ontario.

**MXR** Professional Products Group



# YOUR

When I set off on my first professional gig some 15 years ago, it was as a member of a band called Sounds Incorporated, which was to last for ten years. At the time, it seemed unlikely to last ten weeks, but we set off on our mission, which was to drive from London to Bradford to back Gene Vincent, for this was our break into the big time as his British backing group.

We made preparations as if we were going on a long expedition to the North Pole and, as it turned out, "Scott of the Antarctic" was re-enacted some time into the tour when, penniless, we tried to spend the night in the waiting room of Crewe Station, but were thrown out into the snow by the heartless station-master. We had to spend the night in the frozen van, covered in newspaper for warmth, unable to sleep for the castanet choruses of chattering teeth. Luckily, there was enough petrol to reach the next gig. Not getting the cash you were expecting after the gig and touring with empty pockets, can be the rule rather than the exception. Sad to say, the greed of promoters and agents is only matched by the keenness of the band to do the gig. A favourite trick is for the agent to telephone the promoter while you are on the way to the gig and, instead of the cash you had been promised and were relying on, he switches it to "cheque to agency", or "half cheque, half cash", instant poverty and hardship. In future parts of "Taking Care of Business" I will explain how to organise yourselves against these vultures who think London to Aberdeen is twelve inches on a map instead of twelve hours in a van.

Courtesy of Pan Am, Quantas, B.O.A.C., American Airlines, TWA and the rest of them, I have circled the globe at least six times, but from transit, to coach, to limousine, to hire car, to driving my own car, nearly a million miles of road have passed beneath my seat. I survived, more or less intact, and the following should help you do the same.

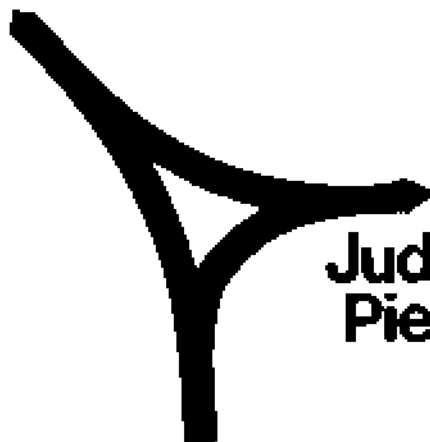
*Remember: The biggest disasters are caused by ignoring the obvious.*

I made a very quick exit from a gig in Hull once, into the drummer's brand new Mini 15 minutes after coming off stage. We were just on the edge of town on a dual carriageway brightly lit with argon lights. We approached a roundabout, a large one, about five feet high with a vertical wall around it and flowers growing on top. We got nearer, he slowed down a bit, but instead of going round it, he drove straight into it at about 30 mph! Luckily I was wearing a seat belt. I had bruised ribs from the seat belt for three



## HOW TO SURVIVE ON THE ROAD

Alan Holmes



Judith Piepe

# SURVIVAL KIT

by Alan Holmes

weeks after. When you ignore the obvious it's sometimes because you don't believe it can happen. I couldn't believe he hadn't seen the roundabout but he hadn't, and I just sat there in disbelief ignoring it looming up. The seatbelts saved our lives as, without them, we would have been pitched head-first into a concrete wall. A timely yell could have saved the car and my ribs. People still don't wear belts. They get killed.

There is no excuse for running out of petrol. If you are hoping to drive home after the gig, you fill up just before you arrive. If you wait until after the gig, all the garages are shut for miles around and if you can't reach the motorway services, you've had it. If you run out on the motorway you could wait five or six hours for help. Vehicles stop if you don't put petrol in them, but hundreds of people run out every day. They ignore the obvious.

There are many other examples, make sure you are not a victim.

## **An A.A. membership card and relay service card**

Under no circumstances leave home without these as, if you break down on a motorway, it can cost £30 or £40 to get towed to a garage. The relay service will get a broken down vehicle and its passengers to the gig or home without charge.

## **Cheque card, Access card**

The only way to get home when you're broke with an empty tank and several hundred miles to go. Can also be used to hire vehicles and are usually used when there is no money in the bank. In the case of the cheque card, the important thing is to get where you're going and you will have three or four days to put the money in the bank to cover the cheque. In the case of Access, you just have to be able to make the monthly payments. These cards are best applied for when you still have a day job and you will quickly lose them should you not be able to come up with the money. When touring abroad 'American Express Travellers Cheques' are a theftproof way of carrying money.

## **Road Atlas**

When getting on to a motorway, going in the wrong direction can mean a 40 mile wasted detour. You need to know motorway turnoff numbers and be able to find out where you are when you're lost. The A.A. member's handbook or better still a road atlas, is essential. Keep one at home as well as in the van so you can plan the best routes before you get lost.

Operate the co-driver system where the guy sitting in the front passenger seat reads the map and navigates for the

driver. He also acts as a second pair of eyes in averting accidents. Unnecessary cries of "Watch it" and the driver might get ratty, but the 100th "Watch It!" could have been the time he was day-dreaming or tired when you would have all been killed. At night, it's the co-driver's job to keep the driver awake and cry "Watchit!" even louder.

## **Insurance Policies**

All drivers must be covered and you must be insured as musicians because any false statement on a proposal means that when the crunch comes, and the company is looking for loopholes to avoid paying up, they will find one and you will be uninsured. After you come out of prison, you could wind up paying a quarter of your income for life to some poor person you have injured. Do not leave home without cover.

Insure your own instrument against theft. During your career it may be stolen. I lost an alto flute off the stage at Madison Square Garden in the time it took to come off and go on again for an encore. Try to insure your equipment. It's difficult but can be done and most companies will let you pay monthly. It might seem expensive but it's nothing like as expensive as the cost of a whole new set of gear.

If you have to leave the van unattended with the equipment in, try to find a safe place to park and always immobilise it. Take the rotor arm with you and keep a spare in your bag. Swap the leads out of the distributor cap cover. Just two will do but remember which. It is impossible to start an engine with this done to it unless you are an expert and can put the wiring right. Back it up against a wall so that the doors can't be forced open and fit padlocks top and bottom and security locks on the front. If you lose the van and gear you may never see it again and it could wipe your band out... Unless you are covered.

## **Guest House and Hotel Guide Book**

You can save a lot of money if you book your own hotels and a guide is the only way you are going to find a place to stay between £4 and £6 a night that is 200 miles away and next week. The guy who books the hotels should be the "toff" of the band with a posh telephone voice, as lots of places are "full up" to people who sound like punch-drunk boxers.

If an agency is booking your hotels, always confirm the day before. Never expect anyone in a record company or agency to do what they say they can do. It's a miracle how most of them keep their jobs. Collect the keys on the way

to the gig or after setting up, as cheap hotels don't have night porters and they might be sound asleep after the gig. You paid for breakfast, get up and eat it, you can always sleep on the way.

## **Jack, Tools, Fan-Belt and Hoses**

Pitch black, miles from anywhere, pouring with rain — not the moment to find that the jack won't go under the laden vehicle when it has a flat tyre, or that the piece of bent tin laughingly described as a "wheel brace" won't loosen nuts put on at a garage with a big spider wrench. Get a decent hydraulic jack (about £10 from discount places) and a socket to fit your wheel nuts with a long tommy bar for plenty of leverage. A spare fan-belt and water hoses will only cost about £5 but you could wait six hours for the A.A. to come, and miss a £200 gig. Check the oil and water every time you stop. There is always a time when you blow an engine if you don't. Make sure you have a basic tool kit.

## **A Warm Overcoat**

This will serve as a travel rug to stop draughts and folded up as a pillow when you want to kip. It saves you waking up with a headache from your head knocking against the window. In case of breakdown you will need to wear it as you could be stuck on a motorway for hours in cold weather with no heater.

## **A Large Shoulder Bag**

When you are on tour this is your life-support system. It should be of the type with four or five zip compartments preferably with handles as well as a shoulder strap. It will contain the following: Apart from the usual toothbrush and paste for reasons that will make themselves very apparent after three or four days away, deodorant and cologne are a must. You will get spotty on the road so you will need antiseptic spot ointment, cut ointment and some plasters. It will *not* contain a wet razor with blades. If you depend on your fingers for a living, you can't risk losing one as I nearly did because of a hasty struggle with a blade dispenser which resulted in six stitches AFTER the gig and a blood soaked stage. A wet razor also makes a nasty mess of a spotty face, apart from the lack of hot water in most dressing rooms.

## **A Battery Shaver**

Battery shavers are really the answer because it means you can shave in the van or car before you arrive at the gig and you don't have to search for power points. You can, in fact, shave anywhere and at any time which is a must.

## **A Hair Dryer**

Got to keep up the image for the

# YOUR SURVIVAL KIT

fans you know and you will need to wash your hair every other day, so you need a small light drier. Get the driers which come with an adaptor plug to fit most sockets. Shampoo is best kept upright in a corner of the bag. Try to get a screw-top as the snap-on types leak.

## Hand Towel

Cheap hotels don't supply towels because they get stolen and dressing rooms seldom have a clean one.

## Cotton Underwear

Six pairs of socks and six pants. If you sit on a P.V.C. seat for long hours in nylon you will eventually get ulcers in a very painful place and find walking too agonising to attempt. Cotton soaks up moisture. Keep an empty plastic bag for used socks.

## Paper and Pens

For writing down ideas which sometimes come easier on the road.

## A Small Cassette Recorder

A must for songwriters but optional for non-creative types. Keep it cheap as it will probably get nicked.

## Pills

You will need multi-vitamin pills to take every day and vitamin C to supplement a diet of take away food and cafe grease. Having bolted it down, you will need indigestion tablets of the "suck" type. You will probably need headache tablets as you will get plenty of headaches both real and imaginary.

## Expenses Notebook

This notebook is to keep track, every day, of what you spend. A pocket diary is ideal.

## Telephone Book

This is a small copy of the big one you keep at home by the telephone. If you lose it, you can easily copy out another but if it was your only copy, you will have suffered a disaster. You never know what ideas you might have on the road and who you will want to contact. At home, you will have another book for addresses, mainly business.

## Screwdriver

Of the size that will fit all screws in an electrical plug. You will be surprised how often this will come in handy, from changing the batteries in an effects box, getting at the wiring of guitars, to digging the dirt out from your nails.

## Bottle Opener and Can Piercer

You can't risk damaging your teeth or hands now that they are your livelihood by opening bottles in the usual crude way. The can piercer can be used for opening tins of fruit juice and can also open tins by overlapping triangular holes.

When money is tight, a cheap meal for a band of five can be bought at the

supermarket for about £1.25p. You can get a large sliced loaf, two or three tins of pilchards and some tomatoes. You can of course elaborate if funds allow, but a meal for 25p is sometimes all you can afford and, if you went into a shop on your own with 25p you wouldn't get a meal or anything like it so always pool your money. I remember an occasion in Germany when we were broke, so we had a "whip round" of what change we had in our pockets. It was enough to buy a large tin of frankfurters and two french loaves at a supermarket. We cooked the sausages in the hotel room sink by leaving the hot tap running on them and made a couple of very cheap hot dogs each. When things are desperate, pilchards, white cabbage and brown bread will keep you alive and well at the least cost (50p a day) for weeks if necessary.

## Penknife

If you are going to eat from food shops you will need this to divide up tomatoes, pilchards etc.

## Peanuts

For various reasons, you won't have time to eat at a cafe or there just isn't any food to be had when you've finished for the night. Rather than go a day without food, keep two or three ¼lb bags of peanuts in your bag for emergency rations. Nuts contain a lot of protein to give you strength and lots of vitamin B to keep you sane. I found out that a lot of people in lunatic asylums are sane after being given a large shot of vitamin B. The brain is only a computer that relies on chemicals to function. An imbalance of chemicals leads to "does not compute" so plenty of B for sanity!

## Music Book

You should have at least one music study book with you. The first will be for your own instrument and be practise material. The second will be theory. "The Rudiments Of Music" would be a good one. Novels help pass the time while travelling although some people get travel sick if they read a book instead of watching the road. Poetry books are good for songwriters.

## Magazines

International Musician of course and whatever you're in to. You can read a couple of pages at a time and not get sick.

This covers the essential bag contents. There is another sort of bag though.

## Suit Bag

This is a bag with a zip down the front big enough to hold your stage clothes on a hanger, in fact about four hangers with spare shirts, jeans, sweaters, slung in the bottom. Cloth ones are best as they allow your damp stageclothes

to dry. They can be made by mum or girlfriend or you can buy plastic ones in chainstores, although these rip easily and won't last long.

## Suitcase

You'll need this if you are going away for more than a week. Don't get a cheap one. At the end of many American tours you are all waiting by the luggage conveyer at Heathrow and you see some washing come over the top followed by odd shirts until eventually the remains of the cardboard suitcase come wobbling into view! Luggage handling systems at airports are very rough and only the tough survive. Get a case of the moulded type by Samsonite, Antler etc. One of these will last ten years. You could buy many cheap suitcases in this time and spend more in the long run. If you use a roofrack one of these cases will survive falling off on the motor way, others will spill their contents over both carriage ways. Not only will you have to buy a new case but also replace most of the contents.

Being a professional musician means being organised. A lot of amateurs earn more than most professionals because they always earn something every week and supplement that with gig money (which is pure profit).

What you're doing when you turn professional is betting some good years of your life that you will make it really big and recoup all the wages you are losing on the many weeks when you earn zero or minus. You are also choosing to live the life of a musician, which means putting music before everything. You are in a competitive business and you can't afford to miss a trick.

ALWAYS work a day ahead checking everything the day before, hotel, gig, promoter, agent, work out the mileage of the next day's gig and calculate how much petrol money you need and thus how much you can afford for food etc.

All of the things I have listed are essential. Your health, your job, your career, your gig, and your life will depend on those items one day. If you think you can get by without some of them, you ain't taking care of business.

The last thing you need is a very large bag full of luck, although most of the time you make your own. I wish you all the luck and success that I have had, although reading this series should put you a few years in front, 'cos if I knew then what I know now . . . . .

*Next month getting organised, Tax and your expenses, accountants, VAT etc.*

# BODY TALK

by Judith Piepe

*Judith Piepe is well-known as a "Universal Aunt" to rock musicians, especially those in the formative years of the Sixties during which time she was a social worker in London's Soho. Among the stars who directly attribute their success to her are Paul Simon and Al Stewart.*

Before you start a strenuous and (hopefully) successful tour, you ought to have three basic check-ups:

- (1) Your van — brakes, tyres, etc.
- (2) Your equipment — get it checked for electrical safety and reliability. Get a mains tester for checking the mains wiring on stage.
- (3) Yourself — Make an appointment to see your doctor and possibly also your dentist for a general check-up. If you think this is too much bother, consider the joys of touring with toothache!

So, let's assume you and your equipment have all been given a clean bill of health. You still need to *keep* healthy during the tour. Your nervous system will be under considerable strain, so sleep as much as possible. Sleep in vans, trains, planes, backstage — wherever and whenever you can.

Eat frequently. Small amounts of food, rather than the occasional vast meal will be easier on your stomach. If you can stand the stuff, drink lots of milk. If you have to eat in Motorway cafes, have an egg on toast instead of sausages and chips. When you eat in a hurry, or when overtired or excited, avoid fried food if possible, unless you really want stomach ulcers. Good hamburgers are O.K. when you are tired — bad ones are terrible at any time! Eat plenty of fresh fruit containing Vitamin C, and drink fruit juice.

Take *extra* Vitamin C in tablet or powder form, if you tend to get colds, sore throats, or spots and also if you smoke Pot. Cannabis is hostile to Vitamin C, which the body can't store, so if you must smoke, eat lots of fruit or Vitamin C afterwards. Apart from its destructive effect on Vitamin C, Cannabis seems to have no ill effects on your health, though its illegality may have a detrimental effect on your lifestyle!

Your nervous system lives on the Vitamin B complex. Your hair and fingernails need it too, to stay healthy. Fresh liver, fresh eggs, fresh herrings, whole-meal bread, Marmite and soya are valuable sources of Vitamin B. If you have to eat any old thing on tour, or habitually live out of tins and Wimpy bars, take some Vitamin B tablets with you (2 tabs, three times a day). Boots Vitamin Yeast tablets, largest size, about 500 tablets, works out cheapest. Or ask your doctor for a prescription for Benerva tablets. Take them throughout

the tour and generally whenever you are under extra strain. You will stand up to things better, you will be less on edge, more able to cope, and easier to live with.

Vitamins A and D (in Halibut Oil capsules) help to keep you well when you don't get much sun in an English winter, or because you are nocturnal; also Ginseng as root, tablets, capsules, or tea, whichever you like best. Garlic is good protection against intestinal infections but may make you socially unacceptable. If you and your friends don't mind the smell, garlic is generally good for you and also good against colds.

Most people know that honey is good for your throat and voice, but did you know that you can use it in an emergency as an antiseptic? If you have gashed your leg on a rusty nail, and have no way of cleaning the wound, but happen to have some honey, put it on the wound. Tie a handkerchief round it and it will keep until you can get it seen to. Alcohol will do the same for a wound, but won't soothe your throat. On the subject of alcohol; while the "Don't drink and drive" thing hardly needs repeating again, too many bands have crashed on the way home from gigs, when everybody was either too tired or still too adrenalinised to drive safely.

Sometimes it is better to sleep first and travel later. Don't use amphetamines to keep awake; they are addictive, they give you a false sense of confidence, and they will damage your health. If you must stay awake when you should be asleep, use 1 to 3 Caffein Citrate tablets B.P., and the same number of Glucose tablets. Buy a large bottle of Caffein Citrate tabs from Boots at the recommended dosage they are roughly equivalent to several cups of black coffee.

Smaller bands with too little money and too few roadies are most at risk in this way. Ideally, drivers should be able to sleep or rest during the gig, other roadies setting up, mixing, loading up again... ideally! But things are often not ideal, and if your one and only roadie has driven the van to the gig *and* set up *and* mixed; it might get you all home more safely if the roadie has a rest, (while the *band* packs up and loads) before the long drive home.

If you are touring abroad, remember that the drugs which we can get here on the N.H.S. are very expensive in other countries, and get your prescriptions filled before you leave. It would be helpful to take Penicillin, or whatever anti-biotic you are not allergic to, sufficient to last for 10 days' continuous treatment in case of any infection. You

must take the whole course of anti-biotic treatment for the whole period of time recommended by your doctor. If you take any drugs or medicines abroad, keep them in their original containers. If they were prescribed for you by your doctor, keep the dispenser's label intact, and attach a slip of paper with your doctor's name address and telephone number.

Also useful are: antiseptic cream, the vitamin tablets mentioned earlier, soluble aspirins, Elastoplast, indigestion tablets, throat lozenges, and a very mild sedative, if needed. Pack all this into a strong plastic bag or box and keep it with your personal things. Some medicated throat lozenges may damage your voice if used too frequently, so ask your doctor's advice about this.

If you travel abroad, also see that your passport, tickets, visas, carnets and contracts (Musicians Union or Equity) are O.K. or you will have more hassles than your first aid kit can cope with.

In case one of you should be stricken with "Montezuma's Revenge" just before going on stage, your doctor can prescribe a small bottle of Kaoline stomach sedative mixture which works very fast and effectively. You won't notice feeling a little drowsy while on stage, but don't try to drive afterwards.

Put a card in your passport, with clear information about your blood group, and any allergies or conditions such as Diabetes — it could save your life. In some cases, your doctor may recommend that you wear a small engraved disc.

In case of contract hassles or other legal problems while abroad, remember that the British Embassies and Consulates exist to help people in your position. You pay your taxes — so make use of the facilities offered!

Where and when it is cold — at home or abroad — take a woolly scarf if you sing, thick warm gloves if you play. Tired, hot hands coming from a hot club into the cold street can too easily become inflamed and rheumatic. Your hands and voice are your living! Get comfortable handles put on anything you have to carry.

Last, but not least, since any personality clashes can add considerable to stress and strain on the road, if there is someone in your band with whom you don't get on too well, keep out of each others way, and don't deliberately rile each other, or you will drive yourselves and everybody else round the bend.

# WE EXPECT TO SEE OU

Here in North London we do things differently. When you've bought something from us we want you to bring it back! Just so we can check it over.

Doesn't matter what it is, if it's the type of thing that needs expert attention you can keep on coming back and we'll go on helping you. Every few months or so let us see that guitar again, we'll make sure it goes on playing perfectly. There's no charge for this service. When you shop at either Supersounds or John Beeby's Music Place you're joining a family, THE NORTH LONDON FAMILY. And we do look after our own.

## SUPERSOUNDS

2 Highgate Rd. Kentish Town  
London NW5  
Tel: 01-485 4434 01-485 0822

<b>Guitars - Electric</b>	
Gibson Les Paul Custom 1961 (SG type, 3 pickups, white)	£625
Gibson SG Jun	£195
Gibson Pro-Deluxe	£550
Gibson SG Stand	£250
Shergold Masquerador	£140
Shergold Modulator	£170
Kramer 250G Special	£350
Ibanez 2351 Antique Violin	£190
Ibanez Howard Roberts	£225
<b>Bass Guitars</b>	
Gibson EBO Walnut	£195
Kramer 250B Special	£371
Rick 4001	£399
Fender Musicmaster L/Hand	£110
<b>Acoustic Guitars</b>	
Ovation Balladeer Custom	£350
Ovation Balladeer	£310
Guild D25 Cherry	£258
Giannini Craviola 6	£120
Giannini Craviola 12	£130
<b>Amplifiers</b>	
Fender Super Twin	£350
Fender Super Six	£330
Fender Showman - Old	£280
Carlsbro Marlin	£168
Carlsbro Stingray Bass	£126
Carlsbro Stingray Bass Combo	£210
Custom Sound 700DX Twin	£250
Trucker	£97
Many more items in stock - Phone us for details.	

## PROFESSIONAL PERCUSSION

### BERGERAULT TUNED PERCUSSION

D'Elude Xylos 3 Oct	£168
D'Elude Xylos 3 1/2 Oct	£210
Xylo Gallop 3 Oct with case	£340
Xylo 3 1/2 Oct Record	£643
Xylo 4 Oct Record	£696
Case Glockenspiel 2 1/2 Oct	£139
Pedal Glock ORTF 2 1/2 Oct FE	£322
1 1/2" Chimes 1 1/2 Oct	£698
Marimba Concert 3 Oct	£726
Marimba Concert 4 Oct	£915
Marimba Concert 4 Oct Ex Hire	£700
<b>VIBRAPHONES &amp; TAMPANI (NEW)</b>	
Bergerault Radio Vibe	£625
Bergerault Touraine Vibe	£750
Musser Pro-vibe	£1310
Premier 701 vibes	£640
Deagan 594 vibe transducers	£1500
Premier 22 1/2" (57cm)	
Timp Copper	£459
Premier 25" (64cm)	
Timp Copper	£485
Premier 28" (71cm)	
Timp Copper	£508
Premier 30" (76cm)	
Timp Copper	£577
Premier 32" (81cm)	
Timp Copper	£647
Ex-hire Timpani in stock	

### PAISTE CYMBAL DISCOUNT 20%

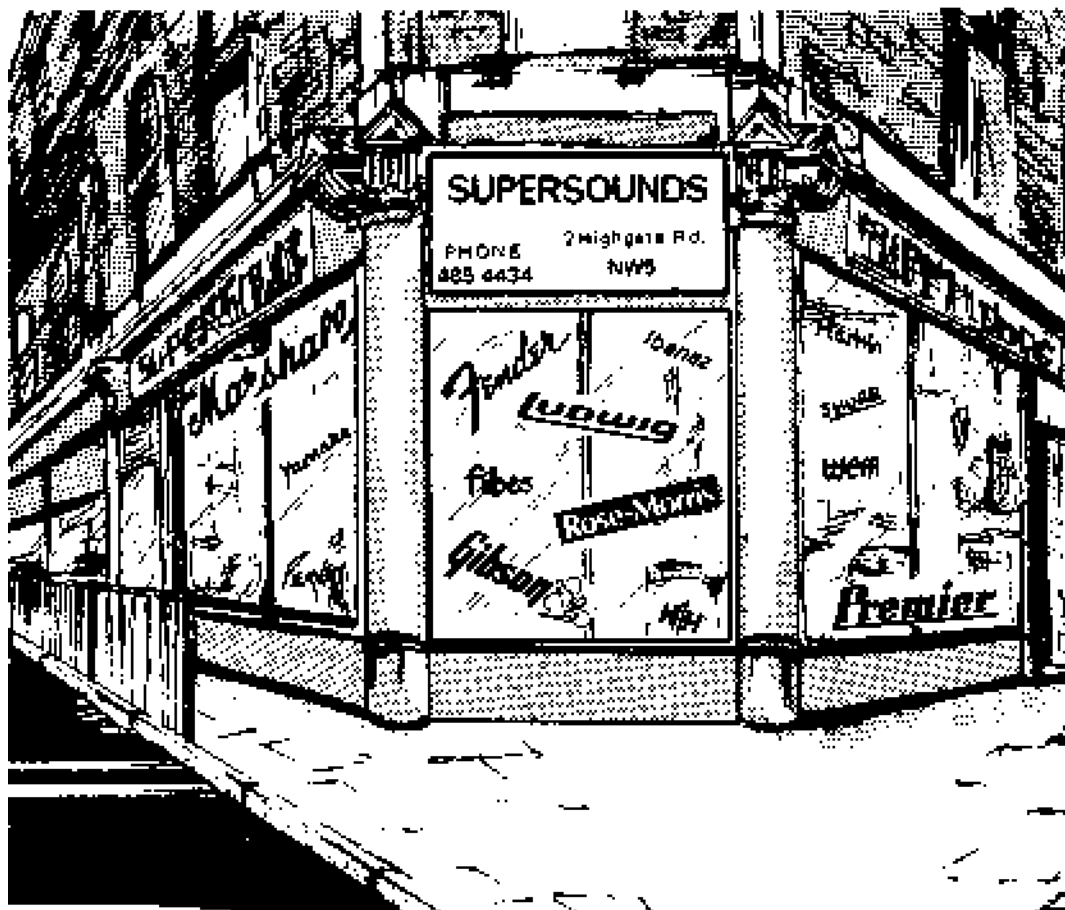
#### DRUMKITS (NEW)

Pearl Rock Kit	£475
Pearl Sound Venture Chrome	£600
Premier D717	£575
Premier D3717 Chrome	£645
Olympic B1033 Inc. Cymbals	£299
Gretsch Black Hawk	£570
Rogers Greater Londoner V	£600
Rogers Londoner VI	£650

A good selection of S/H Drum kits phone for details

#### LATIN AMERICAN

Carrols Flexitones, Marktrees, Belltrees, Kalimbas, Pearl and Premier Timbales, L.P. Cabassa, Cowbells, Agogo Bells and Guiros	
Pair of King Congas inc, stand	£170
Set of 4 King Congas inc, stand	£235



Pour tous nos lecteurs de langue Francaise interesees par les instruments a PERCUSSION BERGERAULT ou autres instruments, telephonez: Londres 554-0664. Entre 16.00 at 17.00 (Heure Anglaise) si la secretaire est absente

# NORTH LONDON IS THE ONLY



# R GOODS RETURNED!

Like every other musician you must be fed up getting the elbow after you've paid your money. At John Beeby's and Supersounds we want you to come in and see us even when it's costing us time and perhaps money. We want to show you just how much we know about guitars, amps, keyboards and drums

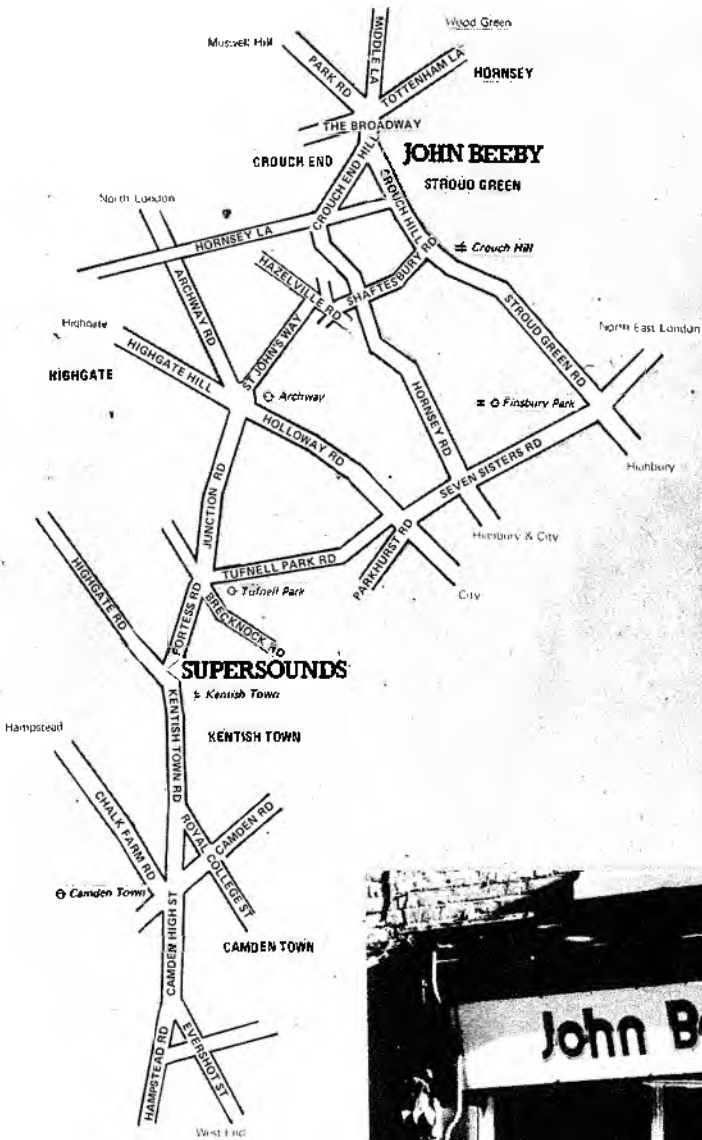
A small selection of our goodies:

Gibson ES350T '58	£550	Gibson 335 Coil Tap	£595
Gretsch Country Club '63	£400	Musicman Stingray	£433
Epiphone Casino '62	£250	Gibson Firebird '76	£595
Fender Tele '62	£240	Guild S300	£349

Plus: Peavey, Maine, Music Man, Yamaha Guild and Large Selection of Acoustics

## JOHN BEEBY

132 Crouch Hill, Crouch End  
London N8 9DX  
Tel: 01-340 5081



vous pouvez laisser un message sur 1 enregistreur automatique message auquel nous répondrons dans les plus brefs délais:

All prices include VAT and items in stock at time of going to press.

# PLACE FOR MUSICAL SERVICE

**Whichever half-inch 8 track machine you choose,  
the Sound Workshop 1280 remains the  
most together recording console in its field.**



The 1280B-8EQ with optional Meter Bridge



the Sound Workshop 1280 recording console

**Sound Workshop**  
PROFESSIONAL AUDIO PRODUCTS

**It sounds better.**

1040 Northern Blvd., Roslyn, New York 11576 (516)-621-6710

# 8 amp plug.



There are eight superb models in the Yamaha amp range. Every one, from the compact G Twenty-Five 112 (bottom right) to the immensely powerful B100 stack (top left) is tough, versatile and built to last.

Good to look at, with effortless projection and great tonal character, these are the amps for the pro. Distortion, reverb, direct inject, close-miking, even a unique 'bright' control and foot switching for effects

—you'll find it all here. Yamaha guitar amps: yet another expression of our advanced technology and our dedication to superlative quality.



## YAMAHA

**Craftsmen to the world's musicians since 1887.**

---

# WIN A GUILD D-25



What guitarist in his or her right mind wouldn't be envious of owning this fabulous Guild acoustic guitar? International Musician and Recording World are offering YOU the chance of winning this beautiful instrument – all you have to do is answer the four questions on the entry form which is printed on page 201 and then tell us, in no more than 30 words, why you would like to win the Guild D-25 acoustic guitar.

The D-25 has a mahogany-shaded spruce top while the neck, back and sides are from solid mahogany. The fingerboard and carved bridge are rosewood and the machine heads are Guild Economy heads. The back of the guitar is moulded, not strutted, giving the instrument a beautiful warm, mellow but cutting sound. Guild L350 phosphor bronze strings (012, 016, 025, 032, 042, 054), which give a crisper "ring" and will last much longer than ordinary strings, complete this amazing instrument.

*The winner of the Guild D-25 will be announced in our April issue. The Editor's decision is final and legally binding. No correspondence can be entered into.*

THIS MONTH  
WE WANT TO TELL YOU  
ABOUT SOUND CITY STRINGS  
FOR ACOUSTIC GUITARS .. C-W,  
BLUES, FOLK ... TAKE SET SC 2000  
BRONZE WOUND (REAL BRONZE!) AND  
LACQUERED BY SPECIAL PROCESS TO  
REMAIN TARNISH PROOF AND TRULY  
BRILLIANT THRU HOURS OF  
PLAYING ... ABSOLUTELY  
EXCLUSIVE TO BMS!



HEY FRED!  
TELL 'EM ABOUT THE  
CLASSIC/CONCERT GUITAR  
SETS SC 9000 WOUND FROM  
LACQUERED SILVER PLATED COPPER  
WITH BLACK OR WHITE NYLON, AND  
SC 9100 IN LACQUERED BRONZE  
AND BLACK NYLON ... 3 GREAT  
AND BEAUTIFUL SETS!

WHILE WE  
ARE ON ABOUT  
SPECIALS ... DON'T  
FORGET THE JUMBO  
GUITAR SET SC 1500  
BRONZE + STEEL

SAY,  
WHERE TO GET  
SOUND CITY  
SPECIALS AND  
REGULARS?

ALL  
GOOD MUSIC  
STORES STOCK  
SOUND CITY  
STRINGS

SOUND CITY MUSIC STRINGS  
*are manufactured by*

BRITISH MUSIC STRINGS LTD.,  
*Pontygwindy Industrial Estate, Caerphilly, Wales, Gt. Britain,  
and distributed in the U.S.A. by*  
HERSHMAN MUSICAL INSTRUMENT CO.,  
*51 West 21st Street, New York, N.Y.  
and throughout the world by other leading local distributors  
... write for the name and address of your supplier.*

# MACARI'S PRESENTS



For Seven Days Only

## THE GREAT ROLAND SHOW!



Starring

**The Roland Guitar Synth- The Roland Keyboard**

**Synths- The Micro Composer- The Giant Systems**

**100 and 700- The Fabulous Space Echo and**

**Much Much More! Plus!**

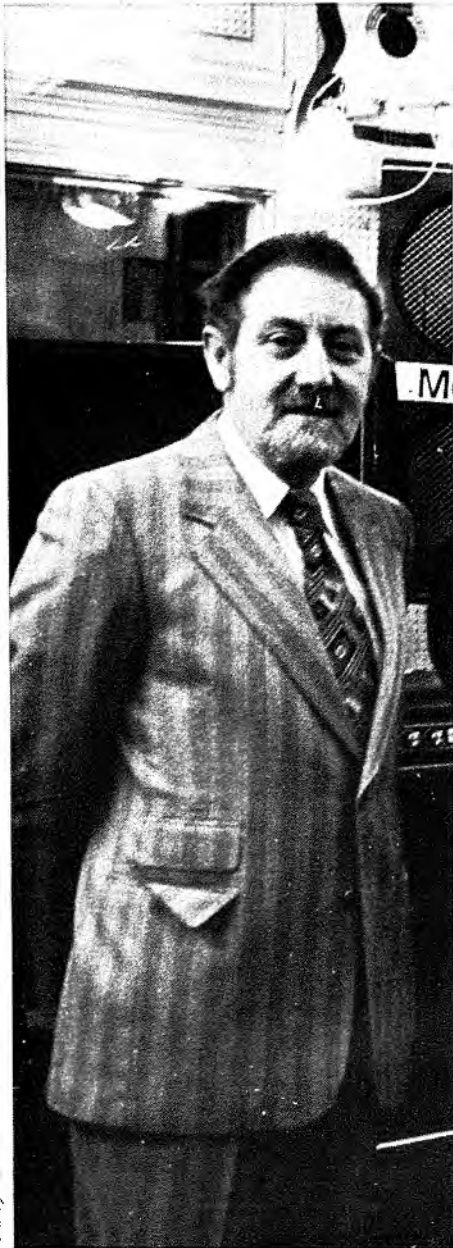
### ADRIAN LEE

(Roland's Star Demonstrator)

**JAN 14<sup>TH</sup>-21<sup>ST</sup> 1978, 9.30-6 PM**

Macari's 122 Charing Cross Rd London WC2 tel 836 2856

# The Great Roland Show at Macari's



Larry Macari

Roll up, roll up for the Great Roland Show which is coming to Macari's of Charing Cross Road in January. For six days, the entire range of Roland keyboards, synthesizers, amplifiers and effects pedals will be on display in the store.

The six-day exhibition, which begins on Saturday 14, is unique in that it is the first time that the Roland company have undertaken such a venture. Their staff will be working side by side with Larry Macari's boys to ensure that the customers will get the very best in expert advice and guidance.

Roland's rise to prominence over the past few years has been quite remarkable thanks to the company's founder Kakehashi. He began just five years ago in Japan, concentrating on design and sales philosophy and personally designs all the Roland products.

Brodr Jorgensen is the company specifically set up to import and market Roland in the U.K. They put personal supervision and excellent service at the very top of their list of priorities.

Macari's have been dealing with Roland equipment for about two years, and boss Larry Macari has the highest regard for their products.

He said: "We were the first to take Roland on in the West End and we have had them for about two years now. I would say that they have the most advanced gear on the market".

"We love to stock it because we know that it sells very well, it is very reliable, beautifully designed and very reasonably priced".

Adrian Lee, who is the Roland expert, will be spending the week in Macari's to augment the store's own staff and demonstrate the full range of instruments.

The star of the show will undoubtedly be the G500 guitar synthesizer which is the first polyphonic synthesizer for the instrument. The guitar sounds like an ordinary one, but it has a special divided pickup which feeds the synthesizer unit.

The six outputs, one from each string from the divided pickup, feed the synthesizer control panel. Although fingering on the fingerboard changes pitch only, pitch bend effects can be obtained in the conventional way.

On the control panel there are five independent sound producing sections, each with its own output, which can be directly connected to separate amplifiers.

There are a variety of features on the control panel such as The Threshold, which senses your playing style and adjusts to maintain uniform sound levels. The Guitar Section comes into use when you want to produce straight guitar sounds, while the Poly-Ensemble is composed of an envelope generator with separate controls for attack, decay and sustain and four voicing mixers.

In the hands of an expert like Adrian Lee, the possibilities of this synthesizer are unlimited and it will be worth visiting the show simply to hear him put the instrument through its paces.

From the rest of the range, Macari's have found the Roland SH3A to be a particularly successful model. It is a versatile and very flexible instrument, and every control gives an extremely wide area of adjustment. Like all good synthesizers it has the three basic essentials of a Voltage Controlled Oscillator, a Voltage Controlled Filter and a Voltage Controlled Amplifier.

It also has three very low frequency oscillators used to generate the vibrato, tremelo, growl and other effects, and one of them is used to drive the "random" and "semi random" pitch selection unit. It is really designed for the professional who wants to get his teeth into synthesizers.

Roland's range of effects pedals are also expected to arouse a great deal of interest with several new models including a new flanger.

Larry Macari is convinced that the show will be a success, he added: "We are looking forward to the show very much and expect it to be very popular. It is the first exhibition we have had like this, and we are very easy to get to, in fact I expect people will be able to pop in several times".

The show will be held at 122 Charing Cross Road, from Saturday January 14 to Saturday January 21 inclusive from 10 a.m. until 6 p.m.

# Andertons MUSIC SUPERSTORE



ALL THE  
GREAT  
SOUND  
AND!!



**"WE HAVE IT  
ALL IN  
STOCK"**

Part exchanges—cash  
discounts superfast  
credit terms—lowest  
interest rates—mail  
order anywhere in  
U.K.

**Fender**  
GUITARS NOW  
FROM £125 !!!

AMAZING OPPORTUNITY  
TO OWN A GENUINE  
FENDER GUITAR FOR  
A RIDICULOUSLY LOW  
PRICE—AVAILABLE  
FOR A STRICTLY LIMITED  
PERIOD ONLY IN EITHER  
BLACK OR WHITE.  
FENDER MUSIC MASTER  
GUITAR OFFERED AT £125  
FENDER MUSIC MASTER  
BASS OFFERED AT £112

ACCESS/BARCLAYCARD

**WE CAN SUPPLY ANY MAKE AT LOWEST PRICES  
WITH UNBEATABLE AFTER SALES SERVICE !!**

**Pearl Ludwig PAISE**  
AND MANY OTHER TOP BRANDS  
CRUMPHORNE  
KEYBOARDS

AVEDIS  
ZILDJIAN CO. **Hohner**  
Fender **ALTEC**  
ROLAND

**Marshall VOX**  
LOGAN maine

**Guild TAMA CSL** EST. 1833  
AND MANY OTHER TOP BRANDS  
MORLEY **Antoria**

MAIL ORDER ANYWHERE IN THE U.K.

**MORLEY FX**

THE ROLLS ROYCE OF FX UNITS  
GUARANTEED THE SMOOTHEST  
ACTION AND MOST PRECISE  
SOUND—MAINS OPERATED MORLEY  
USE OPTOELECTRONIC (LIGHT SENSITIVE)  
CIRCUITRY—ALL CARRY A FULL  
12 MONTHS WARRANTY!  
POWER/WAH/BUZZ WITH SWELL £115  
POWER/WAH/BOOST WITH VOL. BOOST £115  
POWER WITH WAH VOLUME £96  
PRO PHASER £146

**SUPER  
CREAT. TERMS  
ON ALL  
ITEMS**

**VATMAN!  
INCLUDE  
VAT**

**the CAT**

**LATEST SENSATION  
FROM THE STATES**

FEATURES—VCOT-VCOR  
(PULSE TRIANGLE SAWTOOTH  
SQUARE AND SUB OCTAVE SQUARE  
WAVE) NOISE, LOW PASS FILTER,  
VCF, ADSR, AR, PDSR REPEAT,  
SAMPLE & HOLD, PITCH AND OCTAVE  
SHIFT, GLIDE ETC.  
PMA ZING VALVE STAGE SYNTHESIZER  
INC. VAT!  
ONLY **£649** OR FROM £20 M.V.

**MONTHLY STAR BARGAINS!**

**"NEW" KEYBOARDS AT LOWEST PRICES**  
Wurlitzer Electric Stage Pianos £625  
only £475 or around £13.00 monthly.  
Fender Rhodes Stage Pianos £850  
only £595 or around £17 monthly.  
Roland EP20 Electronic Pianos £465  
only £295 or around £8 monthly.  
Roland SH1000 Synths £685 only £469  
or around £13 monthly.  
Roland SH 2000 Synths £685 only £525  
or around £15 monthly.  
Roland System 100 complete £1677  
only £1299 or around £37 monthly.  
Hohner Clavinets D6 model £495 only  
£449 or around £13 monthly.  
RMI Electra Piano used only £399 or  
around £11 monthly.

ARP Pro-Soloist used only £499 or  
around £14 monthly.  
Vox Electronic Piano £250 only £199 or  
around £6 monthly.

**"NEW" GUITARS AT LOWEST PRICES**  
Fender Strats any colour £129 or  
around £6 monthly.  
Fender Teles any colour £199 or around  
£8 monthly.  
Gibson Les Paul De-Luxes £638 only  
£412 or around £12 monthly.  
Gibson Les Paul Customs £659 only  
£499 or around £14 monthly.  
GOOD SELECTION USED GUITARS  
AND INEXPENSIVE MODELS

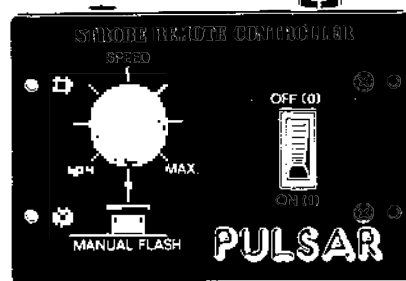
**LOOK  
SALE  
LEFT**

**WARRANTY  
SERVICE**

**ANDERTONS, STOKE FIELDS,  
GUILDFORD, SURREY—GUT ALL.  
TEL: GUILDFORD (0483) 75928/9**

# PULSAR

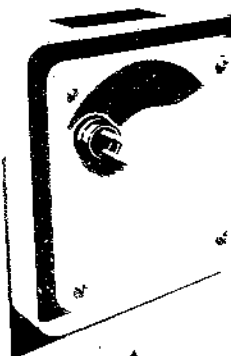
**STROBES  
& CONTROLLERS**



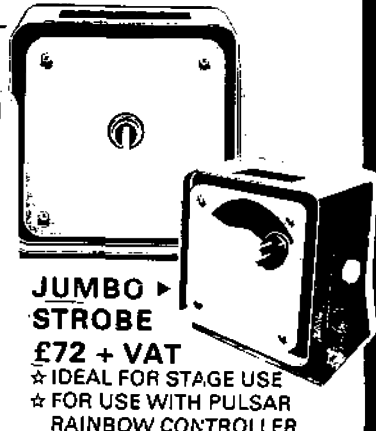
**REMOTE STROBE CONTROLLER**  
£15 + VAT  
☆ DIRECT OPERATION FROM YOUR CONSOLE  
☆ MANUAL FLASH BUTTON  
☆ SPEED CONTROL

**PULSARS FAMILY OF STROBES**

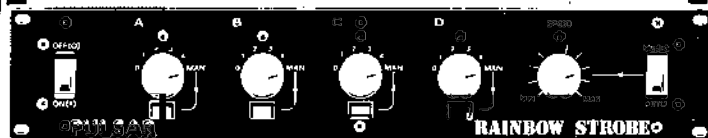
**MAXISTROBE £49 + VAT**  
☆ MAXI PARABOLIC  
REFLECTOR  
☆ REMOTE CONTROL  
SOCKET



**SUPERSTROBE**  
£38 + VAT  
☆ IDEAL FOR SMALL DISCOS  
☆ PROFESSIONAL STROBE AT A BUDGET PRICE  
ALL STROBES AVAILABLE IN 110V  
and 240V MODELS



**JUMBO STROBE**  
£72 + VAT  
☆ IDEAL FOR STAGE USE  
☆ FOR USE WITH PULSAR  
RAINBOW CONTROLLER



**RAINBOW STROBE**  
£79 + VAT  
☆ 4 CHAN. SEQUENCE PROGRAMMER  
☆ MANUAL FLASH BUTTONS ON EACH CHANNEL  
☆ AUTOMATIC OR MUSIC-BASED SEQUENCING  
☆ CONTROLS UP TO 20 STROBES (5 PER CHAN.)

**PULSAR WISH YOU A HAPPY NEW YEAR**

**FULL DETAILS FROM  
PULSAR LIGHT OF CAMBRIDGE**

**NOW AT NEW PREMISES:  
Henley Rd., Cambridge CB1 3EA**

**Tel: (0223) 66798  
Telex: 81697**

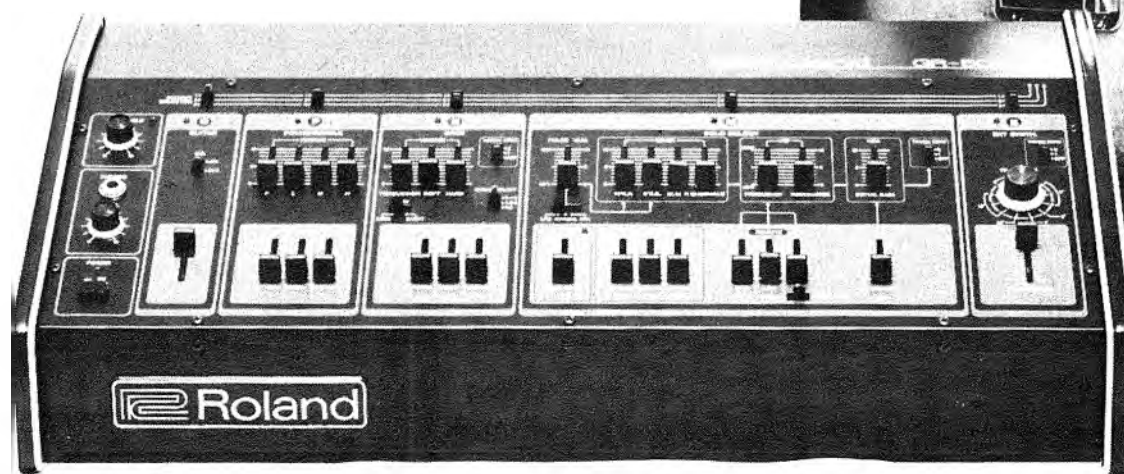


# YOU CAN PLAY IT AT MACARI'S Jan 14th-21st

THERE'S A SPECIAL EXHIBITION AND DEMONSTRATION OF ROLAND INSTRUMENTS AT MACARI'S MUSICAL EXCHANGE BETWEEN JANUARY 14TH AND 21ST 1978!

COME ALONG AND TRY THE FANTASTIC ROLAND GUITAR SYNTHESIZER FOR YOURSELF. HEAR STAR DEMONSTRATOR ADRIAN LEE PERFORM ON PRODUCTS FROM THE ROLAND RANGE: INSTRUMENTS LIKE THE SYSTEM 100, THE SH5 AND THE SH2. ALL THE FAMOUS ROLAND SYNTHS WILL BE ON DISPLAY. EVERY DAY DURING NORMAL SHOP HOURS. THE EXHIBITION IS STAGED BY ARRANGEMENT BETWEEN MACARI'S MUSICAL EXCHANGE AND BRODR-JORGENSEN (UK) LTD.

MACARI'S MUSICAL EXCHANGE,  
122 Charing Cross Road, London WC2.  
Tel: 01-836 2856



# Aria Pro II

## The Professional Guitar with Guts

You've played a lot of guitars. And you know 'pretty' isn't always the sound you're after. With the Aria Pro II the sound is in your hands. To make, shape and explode into an unforgettable musical experience. Pick it up. Feel the solidity of the best materials. Run your fingers all over the slim, quick-action neck and discover what craftsmanship and experience can do for your sound.

The Pro II is made to handle the most subtle and most dynamic musical conditions.

So if you have what it takes to make new music, it's time to let the Pro II prove itself to you.

With guts from Aria.

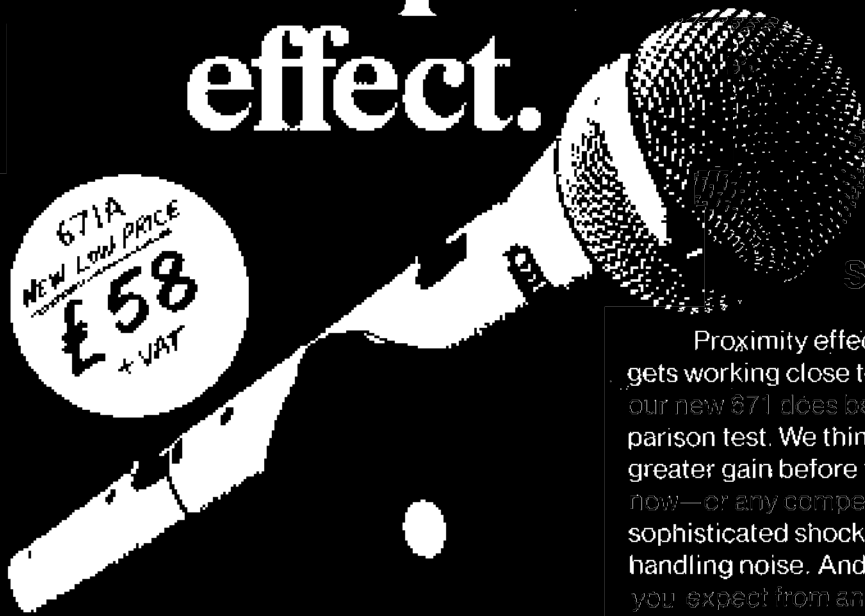


AR170

# Aria Pro II

# Sometimes you want lots of proximity effect.

**PRICES DOWN!**



671A  
NEW LOW PRICE  
**£58**  
+ VAT

**"The Mike With Guts!"**  
E-V's New 671A  
Single-D Cardioid.

Proximity effect. It's that husky bass boost a singer gets working close to the mike. It's just one of the things our new 671 does better than other mikes. Make a comparison test. We think you'll find that the 671 provides greater gain before feedback than the mike you are using now—or any competitive mike. You'll also find that our sophisticated shock mounting assures superior rejection of handling noise. And it's got all the tough-as-nails ruggedness you expect from an Electro-Voice microphone.

# Sometimes you don't.



660  
NEW LOW PRICE  
**£64.88**  
+ VAT

661  
NEW LOW PRICE  
**£74.40**  
+ VAT

**"The Clean Mike!"** E-V's  
New 660/661  
Continuously  
Variable-D  
Super Cardioid.

Successor to the famed 664 ("The Buchanan Hammer"), our new 660/661 minimizes proximity effect to deliver clear, crisp sound at any working distance. Frequency response, both on and off axis, is continuously smooth and uniform. Rear sound rejection capabilities are excellent. The 660/661 mike is the one mike for doing the most jobs best. The same professional performance as our famous RE series at less than professional price.

The 661 has a high/low impedance switch. The 660 and 671 have no-solder impedance change that takes less than a minute.

E-V  
PERFORMER  
MICS. FROM  
**£45.83**  
+ VAT  
SEND FOR NEW  
PRICE LIST  
& CAT.



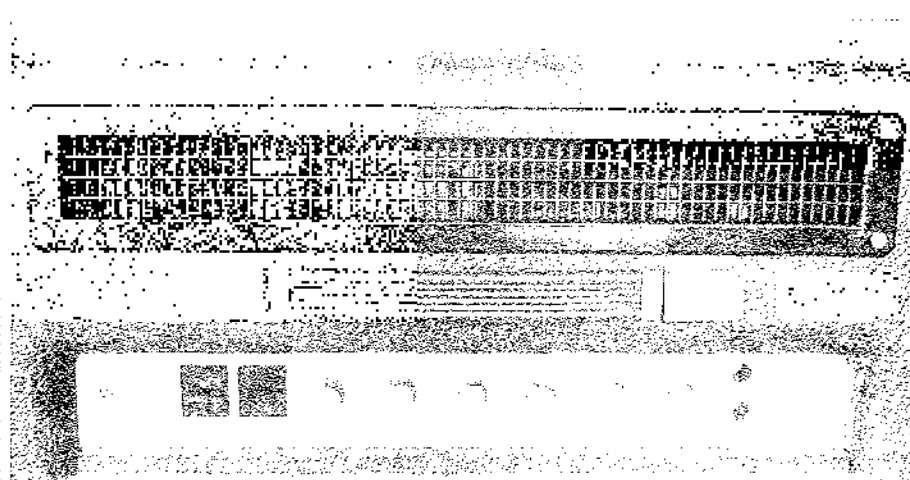
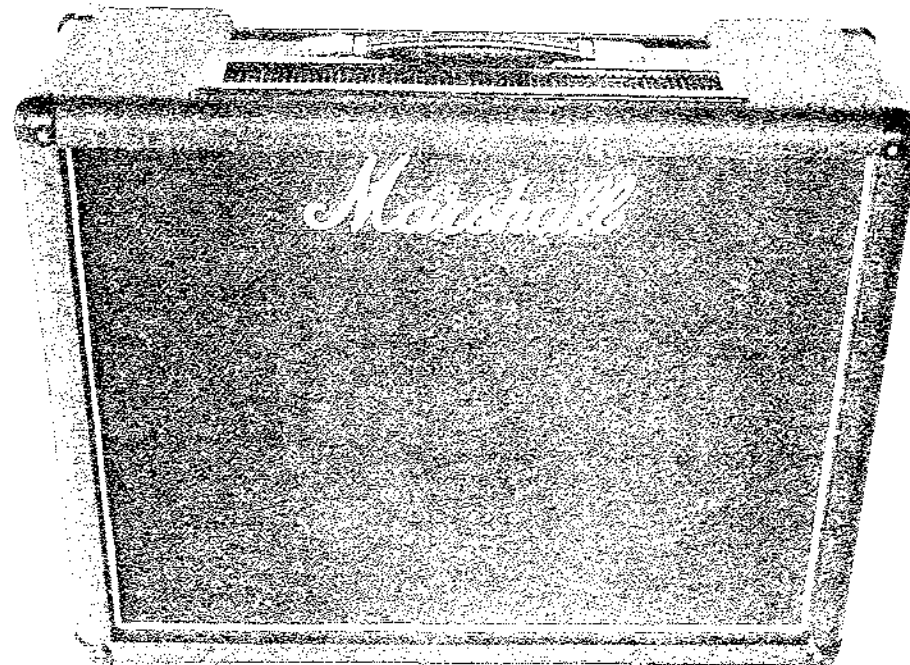
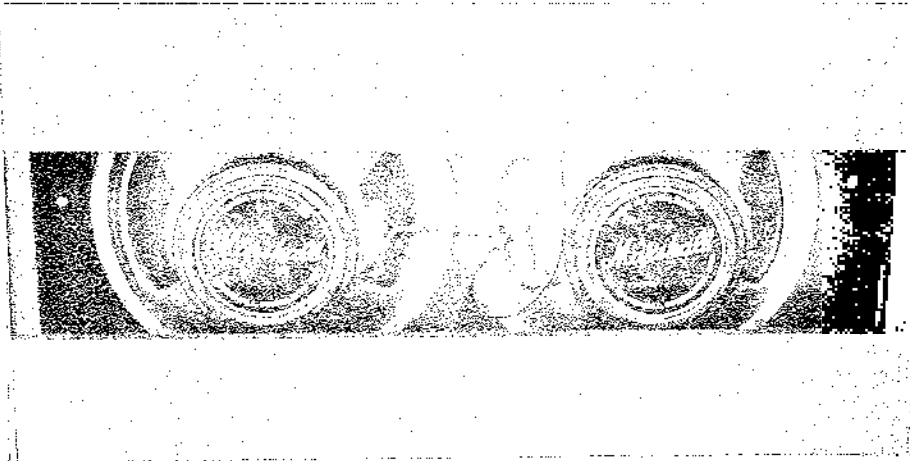
**Electro-Voice**  
a gulton company

**ELECTRO-VOICE DIVISION,**  
Gulton Europe Limited,  
Maple Works,  
Old Shoreham Road,  
HOVE,  
Sussex BN3 7EY.  
Tel: (0273) 778401/2/3/4

# SOUND CHECK

TEST ON: Marshall 50 watt Combo

DATE: December 1977 PRICE: £250 (exc. VAT)



Sometimes, with new species of amplification springing up every other day, you can get to the point where a product from the stables of one of the old names is refreshing and reassuring. In the midst of all the Eurotec, Phoenix, Peavey, and Music Man orchids, it can be very pleasant to come upon a simple Vox, Fender, or Marshall daffodil.

Such a daffodil is the new Marshall 50w Combo Mark II amp, a simple blossom of no mean beauty. And lest I carry the analogy too far, let me say there is nothing fragile about it. The Mark II is typical of the Marshall fanaticism for overkill – if there can be such a thing – in toughness. But this is not an example of the kind of crude toughness we have come to expect from many of the peripheral manufacturers; this is good functional workmanship at its Marshallistic best.

To look at, the Mark II is totally un-revolutionary. It is so typical of the Marshall product that you could be tempted to believe Marshall have done no development work since 1967 – the day-grey “elephant-hide” vinyl covering, the fat 1½” lip around the speaker-cloth, the gold escutcheon plate with its little brown knobs – all these bespeak a Volkswagenish classic-in-its-time refusal to change a good thing merely for change’s sake. In fact, the only obvious differences between the Mark II and the older Marshall products are the exclusive corners and feet and the Marshall name on the back of the speakers.

The Mark II combo is a single channel 50w valve amp with two inputs – one high sensitivity and one low – driving a pair of 12” speakers in an open-backed enclosure. The cabinet is constructed of 5/8” (probably beech) plywood with pine lipping and (if I remember correctly from my tour of the Marshall factory some years ago) comb joints at the corners. Comb joints are like straight dovetails and ensure a very strong joint and an accurate right-angle. The boards covering the top and bottom back are ½” ply and have very little give when forced. All the fittings (bar the strap-handle which is of a good size) seem to be made of super-strong ABS plastic. The corners and ventilation cover are studded on with brass split-shank nails while the feet, which are a kind of slider and shock-absorber type, are screwed on with a pair of crosshead screws each. All other screws are in cups, and all the screws are Pozidriv which tend not to

fine  
has

with  
sma

at th  
Rob  
con

burr as easily as single-out head screws.

The whole amplifier chassis is screwed onto the top rear board with the control escutcheon exposed on the top of the amp. Only six screws need be removed and the whole chassis can be unshipped, which should make repairs fairly simple. The chassis-box itself is a heavy folded steel unit welded along the corners: the top side is the control panel, the bottom side is for speaker outlets, mains, and so on, and the front side holds the valves and transformers which are fastened parallel to the floor (but are still fairly accessible) inside the speaker enclosure. Input valves are completely enclosed by "twist-on" sprung metal shields while the output EL34's are held in high-quality ceramic sockets by a top frame with side-springs. Apart from valves, transformers, and the capacitors, all other components and circuits are contained within the steel chassis box.

The controls are simplicity itself. A redlight wide rocker switch for Power, a similar unlit switch for Standby, rotary controls for Presence, Bass, Middle, Treble, Master Volume, Pre-amp Volume (all coded 0,2,4,6,8,10), and the standard ¼" jack socket inputs, one labelled High sensitivity and the other Low. Obviously the High input (measured at 3.1 mv rms) is the one for guitars. You could always use a synthesizer into Low, but I have my doubts whether the Low input is really necessary on this kind of combo. Still . . .

The underside panel sports a pair of standard jack sockets, one of which feeds the internal speakers and the other for externals (which necessitates changing the ohmage selector accordingly); then the ohmage selector for 8 (internal), 4 and 16 ohms; a voltage selector, HT and mains fuseholders, and the European encapsulated mains lead input.

The Mark II weights 65lbs and measures 29" wide, 9" deep, and 23" high (plus ¾" feet), and comes complete with waterproof cover, a short owner's leaflet explaining the use of tone controls, etc. and a (required) one year's guarantee.

In use, the Mark II provided the obvious and expected Marshall sound, and plenty of it. This is a loud 50w amp. Using both Strat and Les, I found the best "hard" sound came from whacking the pre-amp gain and all tone controls up full with the exception of the Mid, which I cut completely: this gave me a nasal buzzing distortion reminiscent of Henry Vestine's work with Canned Heat. Bringing back the Mid gave a more Townshendesque sound, and easing all the controls back a bit gave a fat smoothness useful for C&W lead, etc.

Noise and pickup buzz were very acceptable (once I had reconnected the earth wire in the mains plug), which is a must for a combo because so many of them end up in studios or being miked up into the PA. The speakers had hard paper cones and paper surrounds, so they could obviously handle plenty of power

without breaking up the sound — the test here is how the bass strings sound; if they sound muffled and messy, the cone is often at fault, but the Marshall had a defined "clonky" fretted sound much to be desired, especially in rhythm guitar work.

It is a peculiar but well-known phenomenon that a good small valve amp with loads of even-harmonic distortion can sound a lot louder than a much higher-powered tranny amp, and the Marshall certainly proved it in comparison with my own transistor amp. This combo is obviously capable of filling a fair-sized venue and at the same time is portable and quiet enough to be used in a club environment.

I have only two criticisms of the Mark II, and both of them are of little importance when compared to the excellence of construction and craftsmanship, and the quality and quantity of sound from this unit. First, the control panel reads upsidedown as you stand before the amp. What?? Second, the placement of the mains panel is such that the mains terminal cannot be seen or used without getting down on your hands and knees. It is even possible that, given plenty of wear, the mains plug will fall out of the chassis terminal because of the way the lead hangs straight down.

However, even at £250 plus VAT, I have no hesitation in recommending the Marshall combo. No wonder Marshall equipment is considered the faithful workhorse of the muso community.

PARAMETER	RESULT	TEST CONDITION	COMMENTS
Specific Power Output (Watts (RMS) Ref. 1.0 KHz)	45.5 W r.m.s. 42.7 W r.m.s. 72.5 W r.m.s.	Onset of clipping into: 4.0 ohms Onset of clipping into: 8.0 ohms Onset of clipping into 16.0 ohms	RMS Power at 10% T.H.D. is: 52.5 W r.m.s. into 4.0 ohms 46.2 W r.m.s. into 8.0 ohms 105.0 W r.m.s. into 16.0 ohms Originally equipped with two 12" Marshall speakers wired for 8.0 ohms operations.
Total Harmonic Distortion T.H.D. (%) Ref. 1.0 KHz	6.70% 2.40% 2.15% 1.40% 1.48%	@ 40.0 W r.m.s. @ 30.0 W r.m.s. @ 20.0 W r.m.s. @ 10.0 W r.m.s. @ 5.0 W r.m.s.	Distortion levels are high but reasonable for a VALVE DESIGN. Total HARMONIC DISTORTION level is a strong function at VOLUME/MASTER relations. Mainly 2nd harmonic distortion valuable point for "VALVE SOUND" guitarist. On the whole the T.H.D. character is similar to a 100w Marshall Amp tested earlier.
Input Sensitivity for 40.0 W r.m.s. (17.88v) Output Signal — mV r.m.s. Ref. 1.0 KHz	Hi: 3.10 mV r.m.s. Lo: 195.20 mV r.m.s.	TONE CONTROLS SET FOR the best "SQUARE WAVE" response 1.0 KHz into 8.0 ohms	Ample Sensitivity for most electric guitar applications when used in conjunction with "HIGH" input socket. Additionally "LOW" with approximately 0.2 V for other applications.
Tone Controls Range Swing in [dB]	12.2 dB — swing 9.5 dB — swing 34.5 dB — swing 7.5 dB — swing	Bass @ 50. Hz Middle @ 500. Hz Treble @ 10. KHz Presence @ 10. KHz	Ref. Presence at 0., Middle at 10., Treble at 0. Ref. Presence at 10., Bass at 5., Treble at 10 Ref. Presence at 10., Bass at 5., Middle at 0. Ref. Bass at 5., Middle at 5., Treble at 10. *The controls are coded: 0,2,4,6,8,10
Signal/Noise Ratio in [dB]	Better than 65. dB	All controls at 5. (flat) measured at 1.0 KHz into 8.0 (ohms)	Good
Capacitive Load Test	OK	2 uF + 8.0 ohms dummy load	We found no sign of instability using practically any level at input signal. Test carried out into 8.0 ohms only.
Open Circuit Stability Test	OK	Master (Pre-Amp) Max. Tone controls — Flat dummy load removed.	Very good stability margin.
Short Circuit Test	2.0 Min!		No ill effects. Worked when short was removed.

# SOUND CHECK

TEST ON: Eurotec (Model E12-02) Modular Mixer

DATE: December 1977

PRICE: £324.00 ex. VAT (U.K.)

## Introduction

Mixers, unlike any other form of onstage gear (with the possible exception of heavyweight power amps), are an evocation of the highest electro-technicart (I just made that word up). They bristle with knobs and faders and are invariably redolent with lovely technoterms (another new word) like "pre-fade listen". Mixers always seem to me like something the average savage would put on his altar and worship.

I was in a very small way involved in the genesis of the group gear mixer in the UK and I have fond memories of nattering with the two original chaps (both now departed for other pastures) in the single small room in Northeast London that was Allen & Heath (although there never was either an Allen or a Heath involved with their mixers). This was some years ago when the idea of modular stage mixers that would perform even approximately like studio mixers was either a laughable or a bloody expensive idea. Since then the industry has come on a treat with many excellent units to choose from. Happily the mixer as an institution has

passed through the stages of status symbol and ripoff, as proved by this example from Oval Audio Equipment Ltd., the Eurotec E12/2 (which, as if you couldn't guess, is a twelve-in., two-out mixer). And doesn't the very name "Eurotec" bristle with butch technology?

## Construction

The Eurotec is a neat, compact modular mixer built into a substantial eighth-inch folded black-finished steel case with high protective sides. It weighs in at 27lbs. and measures 27½" wide by 17½" deep by 4" high including the rubber feet or 5" including the feet and raised lips on each end. In its 12 into 2 configuration, it will cost you £324 retail.

The Eurotec follows the usual pattern with input modules edge-connected in and screwed down onto the main chassis. Removing and replacing a module was the work of a minute for my trusty cross-head screwdriver, and although the review sample performed reliably over the week I used it, the probable low price of an input

module (which I have arbitrarily figured at about £25) means that many groups will be able to afford to keep a spare in their roadies' box.

## Facilities

Looking at an individual input module, the controls and facilities from top to bottom are: standard ¼" jack socket input, high/low impedance slider switch, channel gain (or better, sensitivity), treble, middle, bass rotary knobs, foldback level knob, echo send knob, pan, pre-fade-listen slider switch, and channel fader.

Below the fader is a small gloss-white panel for designation marking with wax pencil or whatever. None of the rotary knobs have a full 0 to 10 numerical skirt, and although I would normally complain about that, in this case common sense indicates that a total of 91 skirts on the mixer might prove more a confusing distraction than a benefit. The cross-head removal screws are sited at the top and bottom of the module. Each module is connected into the chassis with pin-type edge connectors, and while I might have preferred a slightly better



quality connector here, the tension of the pin-grippers was good enough to preclude any danger of bad contacts.

The output module is a single module incorporating both output channels, a slightly questionable practise, but acceptable given the price of the beast. Unlike the 1½" wide input modules, the output module is 6" wide and seems to me to be a wasteful contrast to the space economy of the inputs, and unlike the inputs, which have a tight professional look to them, the output seems a trifle sloppy and hastily-concieved. Still . . . The controls and facilities are: mains red-lit rocker switch, a pair of VU meters, output/prefade metering slider switch, foldback level, 600 ohm headphones stereo ¼" jack socket, left and right headphones level knobs, left and right echo return level knobs, echo send master level knob, headphones output/prefade monitoring slider switch, prefade level knob, and the two output faders. The removal screws are sited two at the top and two at the bottom, but because of the width of the module and its shallow U-construction, the screws are backed by a pair of spacing nuts, one set of which seized up while I was trying to remove the module. Again, this module is wired in by a multitude of edge-connectors. Below the module, screwed directly onto the bottom surface of the metal

case, are several circuit boards and the mains transformer and capacitor. There is no screening enclosing the transformer and only a single small sheet of screen between it and the nearest input, but since the noise levels were acceptable both in use and on test, no criticism can be levelled.

The only other facilities are located on the rear panel at the output end: encapsulated European standard mains socket, anti-surge fuseholder (100 mA for 240V, 200 mA for 120V), mains voltage selector of the screwdriver-adjustable type, and standard ¼" jack sockets for foldback out, echo send and return, and left and right output.

#### Performance

There is very little you can say about a good mixer in use, and this is a good mixer. It has no real ergonomic sins (of paramount importance on a mixer, with all those controls to be used, usually in bad light) and it displays no sound character of its own, which is quite right. A mixer should control sound, not add to it or subtract from it. A mixer should be perfectly "transparent".

So, in use, it worked. The EQ controls had plenty of boost and cut; the headphone amplifiers were (for once) good and loud. Personally I prefer a bit of resistance on the faders, but not everyone does. The Eurotec faders were very

free — in fact, the input faders are of a different species to the output faders, which were definitely sloppy. I found the metering a bit insensitive and out of balance, but let's face it, VU's are a compromise anyway — PPM's would be better, but much more expensive.

A couple of the channel faders were slightly noisy, but not objectionably so. All in all and considering the price, the Eurotec is a versatile and easy to use mixer that does its job with quiet competence.

#### Conclusion

I like the look of the thing, the white graphics on black matt enamel, but I do have a couple of cavils: although slightly bevelled, those raised corners are still sharp enough to do damage to forearms in use and other equipment in the van — I don't think the price would have shot up too much if a steel lid on removable hinges had been provided; and a strap handle somewhere on the case would be a boon to humpers. Barring those few criticisms, the Eurotec has to be very good value for money. And I understand that you can buy it as fewer inputs and expand as you go along — then if you want to go beyond 12-in, Oval will take back the case and give you a bigger one for which you pay the difference. An excellent idea which will certainly contribute to the success of Oval.

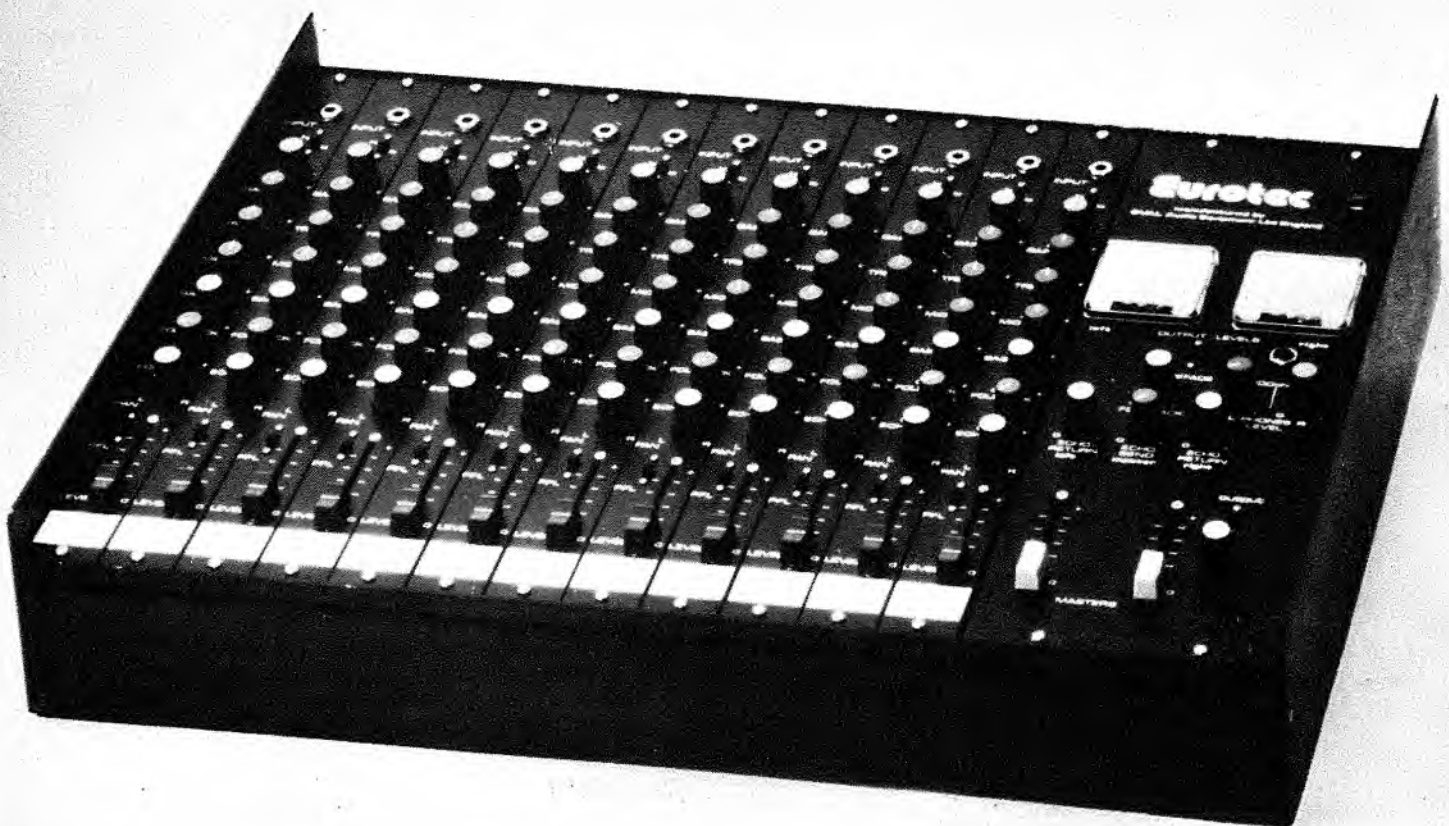
PARAMETER	RESULT	TEST CONDITION	COMMENTS
Input Impedance	Approx. 600 ohms Approx. 22. Kohms	Low (unbalanced) High (unbalanced)	Acceptable
Input Sensitivity	0.5 mV r.m.s. 18 mV r.m.s.	For 0. dBm o/p level	Manufacturer claims 0.15 mV for 0dBm — Ref. "Lo" i/p Imp. 14. mV for 0dBm — Ref. "Hi" i/p Imp.
Maximum Gain	77.18 dB 35.64 dB	Low Impedance High Impedance	Very good — more than adequate for normal purposes
Total Harmonic Distortions (%)	Less than 0.1% (0.062% — typically)	@ 1.0 KHz	Very good — Predominance of the 2nd harmonic observed.
Frequency Response	+ 1.85 dB	20Hz — 20KHz	Acceptable; Manufacturer claims — 0.5 dB @ 20Hz — 17KHz.
Tone Control Range	30.08 dB — swing 28.12 dB — swing 31.12 dB — swing	Bass at 100Hz Middle at 2.5 KHz Treble at 8.0 KHz	Good; — almost identical to the manufacturer's specification: Bass — + 15dB @ 100 Hz. Middle — + 15dB @ 2.5 KHz Treble — + 15dB @ 8.0 KHz.
Output Level	Nominal 0dB (0.775V) + 14dBm	Ref. o/p Impedance of 600 ohms Overhead Level into 600 ohms	With output capability of 8x600 ohm loads (each output) Note that output impedance is less than 25. ohms.
Residual Noise	-72.12dB	Channel faders @ zero Master fader @ maximum.	Quite good, but could be better.
Crosstalk	-53.20dB — typically	@ 1.0KHz	Good.
V.U. — Meter(s)	0dBm = 0.775V	British Standard	Not accurately balanced.
Multi Input Priority	Satisfactory on actual experiments.	Twelve channel test plus variations.	Good.
Headphones Output Level	Ample power available.	Ref. 200 — 1000, ohms impedance.	Loud 11.2.

# Eurotec MIXING CONSOLES

A versatile series of mixing consoles, using British design and technology, with modular construction for ease of access, ideal for studio and mobile work.

Eurotec mixers are attractive, as well as rugged and functional, finished in sheet steel, with black anodised aluminium panels.

Flight cases for all models available.



**macari's**

122 CHARING CROSS ROAD  
LONDON WC2  
Telephone: 836 2856

To: Macari's 122 Charing Cross Road, London WC2  
Please send specification sheet

Name \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_





# delft's GUITARCHECK

TEST ON: Raimundo No. 112 Classical Guitar.

DATE: December 1977 PRICE: £42.78 (ex. VAT) Case extra

TEST

I remember, some years ago, that one could buy a simple, but sweet-sounding Spanish guitar for rather less than a week's wages. No one would call such instruments refined. Most of them were rather poorly finished. It was quite common to find frets which appeared to have been levelled with a Combine Harvester, only feeling smooth when new, because they were covered with the same thick lacquer which had been applied to the rest of the neck and fingerboard. Machine heads were often stiff – and stayed stiff – but had the compensating advantage that one soon developed a vice-like grip in the left hand. No, they were not refined, but some of them sounded rather good – and still do. I know people who still have such instruments, and would not part with them.

Since that time, Spanish makers have had to come to terms with the Japanese guitar industry. Japanese guitars in the low and middle price ranges seem to have a better outside appearance than their Spanish competitors and are frequently more accurate but in general, they do not seem to be as responsive, nor do they have the subtlety of tone of similarly-priced Spanish instruments.

The Raimundo model 112 is the second in a line of guitars, ranging from No. 106 at £39.95 to No. 440 at £440, including a hard case. It has often been my experience that the second-cheapest in a line of instruments is very good value, and this would certainly apply to my review sample. It has a sweet and full tone, characteristic of Spanish instruments which I remember from some years back. The frets, while not perfect, are certainly smooth enough to be playable without any difficulty.

The machine heads are similar to those found on the cheaper Japanese classical guitars. On this sample they are well finished, and they are *not* stiff!

One could not honestly say that this guitar was beautifully made inside. There has been very little attempt to finish things off neatly, but for all that, it is strongly-made, and has all the right bits in the right places. The cheaper Spanish export guitars have never looked very pretty inside, but this does not seem to affect either tone or reliability in most cases.

The soundboard is solid wood, and is made from a sort of Pine which I have seen before, but cannot put a name to. The back is made from laminated African Mahogany, and the sides from a similar

but lighter-coloured wood. The bridge could be anything, because it is coloured black, and I certainly don't think it is Ebony. The fingerboard is a nice looking bit of Rosewood, and the neck is probably Cedar. The bindings around body and soundhole are done in the usual Spanish way with strips of coloured wood, and with the exception of the back, the whole instrument seems to be constructed along traditional lines. It is hardly surprising that the tone is also along traditional lines!

On the debit side, the plum colour of the back and sides of this sample doesn't quite work. It resembles neither Rosewood nor Mahogany. More red and brown and less pink would give a more conventional appearance. Also the slots in the nut need some attention to stop the strings 'creaking' as they are tuned.

Apart from the disconcerting noise, strings which stick in the nut can cause some difficulty in tuning. This problem occurs in some samples of *most* makes of classical guitars. Re-cutting the slots and lubricating them with a soft pencil will sometimes cure it, but the success of this treatment seems to depend very much on the material from which the nut was made. Usually Ivory, bone and hard plastic will work best as nuts, with moulded Styrene in the middle, and Nylon tending to give most trouble. This nut seems to be either bone or very hard plastic, and a few minutes' work should make the strings run smoothly.

My only serious complaint is that too much wood has been left on the neck. It is nicely shaped around the heel, but becomes thicker towards the middle and head end of the neck. Other samples may have better-shaped necks, but this one feels just a little uncomfortable and would be improved by a careful shaving job. Also, my sample had a false top E string, but that is easily enough changed.

## Conclusion

There is nothing fancy about this guitar, but it sounds good even with cheap strings, and it should last a long time. It compares favourably with Japanese and Korean instruments in the £45 to £50 price range, and offers particularly good value to anyone who rates performance more highly than decoration. I should like to see the neck shaping improved. As this is almost the cheapest in the range, I should be very interested to see some of the more expensive ones.

Measurements on Raimundo model 112  
String spacing at bridge 57mm  
String spacing at nut 44mm  
Fingerboard width at nut 52mm  
Scale length – 662mm – This is quite long even for a Classical guitar, but scale lengths on this type of instrument seem to be increasing gradually.  
Action as supplied 3.3mm treble/3.3mm

Bass. This is comfortably playable with the strings supplied, but one could probably slope the saddle so as to reduce the treble-side action to about 2.8mm.

Index of curvature. At the usual point of measurement, the centre of the soundboard is practically level with the edges. This is acceptable on a moderately-priced Classic of strong construction.





# delft's GUITARCHECK

TEST ON: Hamer

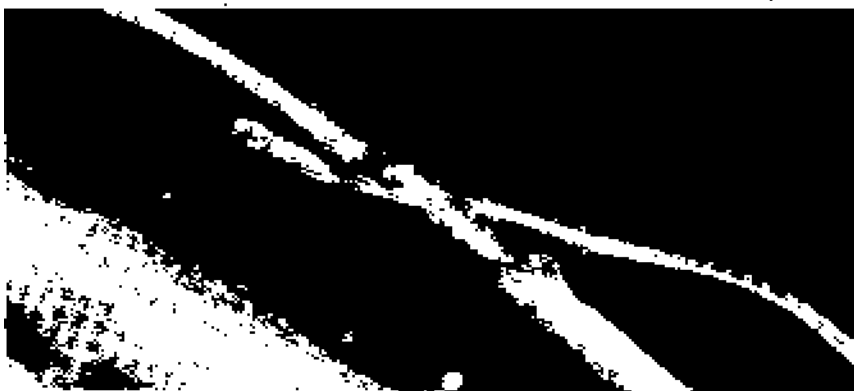
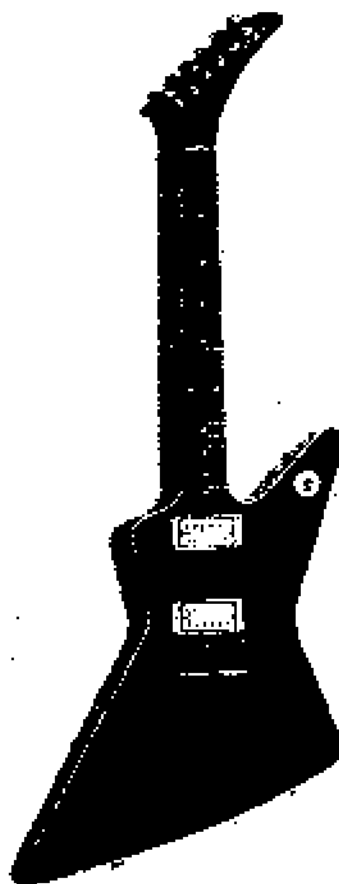
DATE: December 1977

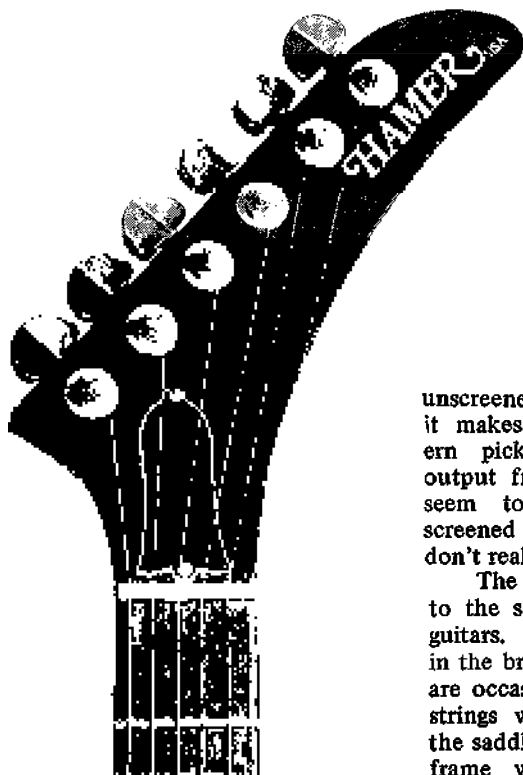
It would be difficult not to notice the similarity between this Hamer guitar and a 1958 Gibson Explorer. The angular scratchplate is missing, which to my mind is an improvement, and there are no lids on the pickups. Also, the knobs are different and, instead of a clear finish on Korina wood, there is a black finish with cream binding on what is probably Mahogany. It is possible also that the strap button has been moved a few millimetres, but essentially this guitar is likely to attract the attention of anyone looking for an Explorer.

As the going rate for a good Explorer can be anything up to 5,000 dollars, even those fortunate enough to have a real one may be interested in a guitar which looks and feels similar and is more easily replaced if lost or damaged. Viewed in the light of the present cost of a Gibson Explorer (less than 100 of the original ones were ever made) the price of this Hamer seems quite reasonable. However, viewed simply as a musical instrument, I don't think the standard of finish and attention to detail on this sample are quite in keeping with the price, compared with some other American and Japanese instruments available in England.

It would be difficult to find fault with the materials used in this sample, but I think it might have benefitted from a little more time spent on adjustments and quality control checks. I appreciate that some of the larger guitar companies around the world have similar difficulties and I have seen many instruments, both old and new, from famous makers with worse problems than you would find on this Hamer. But both the price and the advertising concerning this guitar suggest that it is made by a small, competent and dedicated company, not by a large and impersonal organisation, producing vast quantities of instruments. Once the price of an instrument has reached such elevated heights, another hundred dollars hardly makes any difference, and it seems unwise to skimp on the small details of what is essentially a very good instrument. In any case, from a small, competent and dedicated company I expect just a little more finesse.

Having said this, I must also repeat that a similar lack of finesse is present in many other instruments, even amongst the more expensive models. My review sample seems to me to be neither worse nor better than average in this respect. I am merely a little disappointed because I had expected it to be rather better than average. As usual with such instruments, I estimate it would require two or three





hours work before giving its optimum performance. I repeat that while this situation is hardly desirable, it is not uncommon, neither does it apply exclusively to Hamer instruments. This particular sample was not provided by the makers or their agents, but it does not appear to have been tampered with (except for the nut, on which I make no comment in this review) and is similar to one which was shown to me by the European Agent at the 1977 Trade Fair. My sample has obviously had a little wear and I have tried to be fair in allowing for this.

The last chance I had to play one of these guitars was in a rather cramped hotel room at the Trade Show. This hardly presents ideal conditions and I decided it would be better to defer judgement until later. Now I have had the guitar to myself for some time, I am surprised that so unusual a shape is really quite comfortable to hold, either when sitting down, or on a shoulder strap. This model is fitted with two Di-Marzio humbucking pickups which already have a fine reputation for reliability and performance and require no further comment from me.

Suffice to say that this instrument sounds good to my ears. The controls consist of one selector switch, one tone control and two volume controls. All of this works well, but some of the wiring inside the body is a potential source of trouble. Detailed photographs show a wire whose insulation has nearly been melted through by soldering operations on an adjacent tag; also a joint between two earth wires which is at the moment functioning, but which would not pass inspection in any of the contract assembly firms I know.

While on the subject, I have not been able to find any traces of screening paint on the inside of the cavity but, as part of the pickups are essentially

unscreened anyway, I don't suppose it makes much difference. Some modern pickups have a sufficiently high output from string vibration, that they seem to get away with not being screened against interference. I still don't really like the idea.

The bridge and tailpiece are similar to the standard ones used on Les Paul guitars. Some of the adjustable saddles in the bridges are a little loose, and there are occasional buzzes on the 1st and 6th strings which are removed by wedging the saddles against the side of the bridge-frame with a screwdriver. This does occasionally happen with such bridges, but it can often be fixed by filing the bearings for the individual adjustment screws, until the wings of each saddle rest firmly on the bridge frame. Unfortunately this tends to loosen the plating, so I have not tried it on the review guitar.

The neck is not particularly slim, but I find it very comfortable, and its shape is such that no part of the curve ever seems to become obtrusive while playing. Similarly, the curve on the front of the ebony fingerboard suits me very well. It is possible that these features may not suit other players, and I would always suggest that you try a guitar yourself before buying it. However, there is nothing abnormal about the neck or fingerboard, they are just "middle of the road" but done rather well.

I am not so happy either with the frets or with the surface of the fingerboard. The tops of the frets vary in shape from almost round to quite flat and some of the ends are a bit sharp. They may have been "filed" badly after the instrument left Hamer but, as the lacquer is intact on the extreme edge of the fingerboard, this does not seem very likely. The position markers in the front of the fingerboard are plastic "pearl" and some of them have slightly ragged edges. This is only apparent on very close inspection. The dots in the edge of the fingerboard are fitted very neatly. The fingerboard has rather a coarse sandpapered finish, with cross scratches around the positions of the inlaid markers, and there are traces of lacquer on the front of the fingerboard in a band along each edge. This fingerboard is made accurately from a very nice bit of wood. If a little time had been spent on its cosmetic appearance, it would have looked much more impressive and a smoother surface would, in any case, probably make the fingerboard "faster".

The head, as you will see from the photograph presents a rather unorthodox alignment of strings and machine heads. In practice, this arrangement seems to work perfectly well, with no tuning difficulties, but it is essential that the slots in the nut are angled in both planes, so that the strings cannot jump sideways out of the slots. It is also essential that the dimensions and material of the nut are adequate for the additional strain imposed on it by the unusual string angles. The nut on this instrument does not appear to be original, and so it would not be fair to include it in the review, but I would suggest that potential purchasers of *any* guitars with similar head arrangements take a good look at the nut, and try the effect of "bending" strings at the first fret position.

There is an obvious risk with a head of this kind, that the end part could be broken off. On this sample, the head is not in one piece, but includes a strengthening bar on the machine head side, with its grain running the length of the head. This is a very sound idea. This sample appears entirely satisfactory, but it might be a good idea if the joint between the two parts of the head did not run along the line of some of the machine head fixing screws.

While on the subject of glue joints, it may be of interest to you that the neck extends right through the centre of the body eliminating the possibility of a loose or mis-aligned neck and removing a common point of weakness. It also allows for a smaller heel where the neck meets the body, and therefore provides better access to the top frets.

### Conclusion

This is a very nice guitar to play. It sounds good and feels well-balanced. It is also relatively expensive, even allowing for its magnificent case. If my sample is representative, I think such a guitar deserves to have a little more care and attention during assembly and finishing.

Measurements of Hamer guitar	
String spacing at bridge	10mm
String spacing at nut (probably)	34.5mm
Fingerboard width at nut	40mm
Scale length	626mm
Action as supplied	— Not Applicable
Lowest action under standard conditions	1.3mm treble/1.7mm Bass

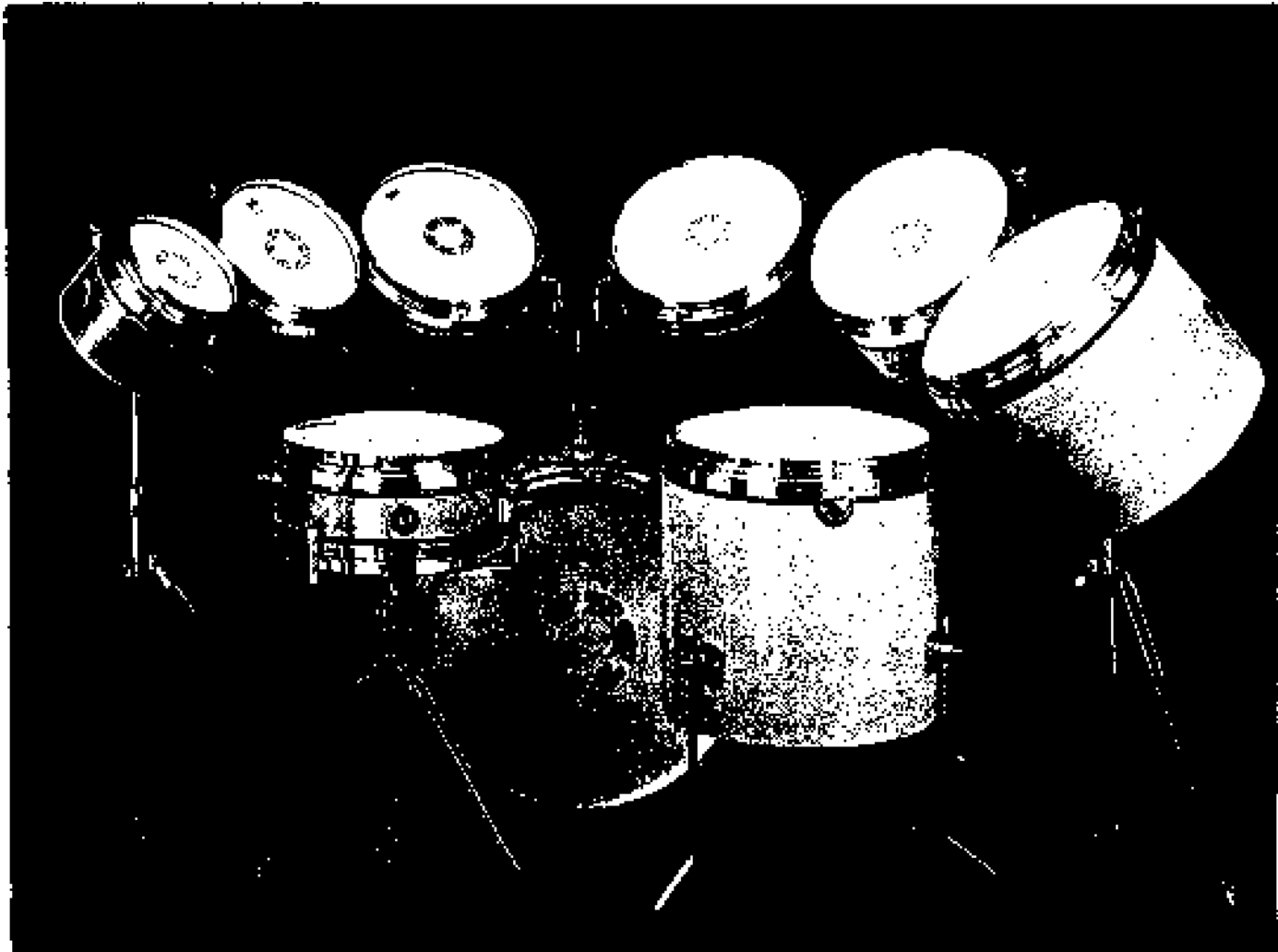
A lower action would be possible and usable if more work was done to level the frets and/or neck. This is the sort of instrument which will function with a very low action when optimally adjusted.



# mcculloch's DRUMCHECK

ON TEST: Arbiter Autotune Drums

DATE: December 1977 PRICE: £690 (ex. VAT)



The whole Arbiter Auto-Tune concept started with the chance remark: "Wouldn't it be a good idea to change a skin, or tune it, at a turn of a key". I suspect the man who first thought of the idea of starting a car with the turn of a key instead of cranking away with the handle must have had a similar reaction. Screwing and unscrewing 16 or 20 tension screws on each drum is a tedious ceremony that most drummers have learnt to live with - it's a long job, constantly trying to keep the skin even, while searching for the right balance of tension and tone. This is made even harder by the hassles of physically getting about the kit to reach some of the lower heads.

Ivor Arbiter (of CBS Arbiter), who nursed the concept from the first remark to the production line, began to consider the idea seriously. The problem was put to engineers, university students, metal workers and any boffin who might be able to help. The possibilities were wittled down to a principle which can

best be described as the "jam jar" principle. The skin is inserted in the hoop and screwed on with a half twist on nylon blocks which are fixed to the top of the shell. This puts the skin on the drum - at this point you would normally have to screw up eight or so individual tension screws. This has been replaced by a single square-headed key at the side of the shell which is turned with a ratchet, and by a series of locking teeth under the hoop, the skin is easily tensioned.

The system at this point would be complete but for one thing, not all skins are made 100 per cent evenly. If the skin hasn't been manufactured with an even surface you'll experience a small ripple; so a further system had to be employed. Three to eight screws, depending on the size of the drum, were inserted on the hoop so that any unevenness in the skin could be taken out.

You might say, at this point, that this has just defeated the whole object of the exercise but, if you consider that maybe one out of three skins has a defect

and that only one screw has to be gently turned to compensate, the principle is still highly successful. I tried it a few times and found I could take a skin off and put on another and tune it in approximately 20 seconds - need I say more!

The second part of the challenge was the shell - to incorporate the "jam jar" principle, they found they needed a recess at the top and bottom of the shell. Making the shell from wood was out of the question as the amount of work and shaping required would have incurred very high costs. What they needed was a material that could be shaped in a mould and, at the same time, give them the sound they were after. It had to be fibreglass. To my mind, fibreglass has all the properties of the perfect shell. As it can be made in one piece without any joints it therefore has very good resonant qualities. It can be varied in thickness where added strength is needed, without adding further layers of material which can only dampen the projection of the drum. Fibreglass doesn't need a finishing

covering as the fibre can be impregnated with any colour. So now it was only a matter of time while they experimented with the thickness of the shells to get the balance between tone and projection. So, after changing the system of moulds to improve the finish of the drums and varying the mixture of gell and fibre with shell thickness varying between 4mm and 8mm, they had the finished drum.

One further problem was still to be solved. The present snare stands weren't stable enough to hold the snare drum whilst turning the ratchet – a new stand had to be developed. The boffins came up with a solution that I consider to be sheer genius. For a start, as all Autotune snares are a standard 14 inches in diameter, it was pointless to make a stand with an open and close "claw" action – instead the snare drum drops on to the three fixed arms and is bolted in place. The mechanism for tilting the drum made me smile at the simplicity of its workings. A metal plate about two inches is cut through at an angle so that in the starting position it lies at 180 degrees but, as the top section rotates, the drum begins to slope off at an angle. When you've reached the required angle you tighten the bolt set in the plates. It's by far the simplest and most stable stand I've ever used.

The set I tried out was the Concert Showman kit and consisted of:

- one 8 x 6 concert tom tom
- one 10 x 6 concert tom tom
- one 12 x 8 concert tom tom
- one 13 x 9 concert tom tom
- one 14 x 10 concert tom tom
- one 15 x 12 concert tom tom
- one 16 x 16 floor tom tom
- one 6½ x 14 Snare drum
- one 22 x 14 bass drum

All supplied with Remo Heads. Two tom tom stands and a snare stand.

Colours available: Black rock, pure white rock, capricorn gold.

#### Bass Drum

The bass drum is a single headed 22 x 14 with a single 'Auto-tune' chromed hoop which slots over seven nylon blocks which in turn is screwed to the drum shell. At the point where the hoop touches the floor there's a metal plate, with a layer of rubber bonded to it, to take the bass drum pedal. The drum is supported on a pair of disappearing spurs with lockable screws and a 45 degree bend in each of the rods to allow the inertia to be transferred to the floor, which seems to be more efficient than the rod system, which doesn't always stop creeping. The interior of the drum has a

mat finish whilst the edges and exterior have a high gloss resin finish which looks very professional. Although the skin is a 22", the shell widens to almost 24", giving more volume in both senses of the word.

The sound of the drum is very impressive with plenty of punch and depth – without any clanging or excessive overtones. The drum comes with a felt strip for damping, but I used a piece of carpet against the bottom of the skin which gave a very good studio sound when pushed in tightly and a much more open stage sound when just lightly in contact with the skin.

It was a fantastic feeling to be able to tune the drum through its range while still playing it. The ratchet gives you good control over the tuning, taking it up or down with just a flick of the wrist.

#### Tom Toms

Originally the 12", 13", 16", 18" tom-toms were only in the double head form, but as the trend for multi-sized single heads grew in popularity they brought in their latest range of single heads with sizes going 8", 10", 12", 13", 14", 15", 16". They do an 18" but this is a double-headed drum.

The same Auto-tune principle runs through each of the drums, the only difference is in their size. The legs on the floor tom slide through an eyepiece and are tightened with the ratchet. They have good height and don't creep.

To play them was quite staggering – they were so loud and strong – almost to a fault. Someone had a play as well while I moved about the room hearing them from different angles. We tuned them down for the deep rock sound, working backwards, tuning the 16" first and working up to the 8". The drums were very beefy with volume to spare. Then we tried tuning them up, especially the 8", 9" and 10". I literally flinched, they were so penetrating.

These drums are fantastic for stage work though you'd have to play with brushes in a nightclub.

An interesting offshoot of the double-headed toms can be achieved by first tuning the top skin then start tuning the bottom head while still playing the top skin. You go through a complete range of tom-tom sounds in a matter of seconds and, as you can hear the note of the lower skin moving, you can get to a perfect pitch with the top skin. A real asset in a studio where pitch is so critical.

#### Snare Drum

I was very doubtful about the drum

before I played it as I've always played a 6½" Ludwig concert metal snare and although I've tried wood, acrylic and fibreglass snare drums before, I've never been very impressed. The drum takes a 14" Remo head with an almost-16" shell. It has a 20-strand snare and works on the conventional throw-off lever system. The drum has a screw up damper pad, which is quite effective though I still prefer to use strips of gaffer tape to eliminate unwanted overtones. As the lower skin of the snare has to be kept very taut, a tremendous amount of pressure has to be used on the ratchet which was a bit scary – I was worried that the shell would shatter, but it seemed to take it without complaining. After playing it I was surprised to find it sounds almost identical to my metal Ludwig. It is crisp and clear but had a thick chunky rimshot with a loudness that matched the rest of the kit. I tried tuning the drum down for the slack rock sound and very taut for the harder jazz sound and, as with the other drums, it behaved very well.

I would have liked more time to have played about with this drum, trying out different skins and degrees of dampening as I feel that with more time I could have got some amazing sounds out of it.

#### Accessories

Auto-tune use their own "ball and socket" fittings on all the tom-tom stands which turn out to be identical to the Rogers Swivomatic. The kit comes with two very stable tom-tom stands, a mounted tom-tom holder on the bass drum and a custom built snare stand. They explained how they combed the market for a successful stand system that would give the maximum stability and the greatest freedom of movement to position the toms and, every time, Swivomatic came up a winner. I think they are probably right.

#### Conclusion

Ivor Arbiter has taken a brave step in going back to square one and building a drum kit from scratch. His team have tackled all the problems head-on and solved each one with a simple and durable solution. When I first heard rumours that they were trying to build a kit of this type my first inclination was to label it "gimmick" but, having looked into each of the developments, I find they're nothing but logical progressions of the drum-maker's art. They've kept in touch with drummers throughout the development taking their advice and criticisms seriously – striking a balance between the inventor and the consumer.



# argent's KEYBOARDCHECK

TEST ON: Yamaha CS-80

DATE: December 1977 R.R.P.: £4,350 (ex. VAT)

The instrument under scrutiny in this month's review is the Yamaha CS80 polyphonic synthesizer. Usually, when reviewing instruments, I have to approach them in a reasonably limited way and imagine, say, how they would perform under studio conditions. I'm pleased to say that this time, having just emerged from three weeks' keyboard playing on Andrew Lloyd-Webber's new set of 23 Paganini Variations, I feel that I've been able to subject the CS80, which was used extensively throughout, to a more searching and accurate test than would normally be the case.

The test of an instrument under studio conditions is, of course, the ultimate test, both from the points of view of technical quality and musical potential. Any small extraneous noise, which on stage would be quite acceptable, can render the thing unusable in recording. Similarly a string sound, which in a live situation might be quite passable, could easily fall to pieces under the analysis of studio amps and speakers which faithfully reproduce everything which is being sent to them. Also the studio tends to demand much more musically from a synthesizer than a home keyboard test — at home I might come across a good sound; in the studio I have to be able to get a sound from the synth which is not only good in itself but is also exactly right for the track to which it's being added.

I must say at once that the Yamaha passed these tests with flying colours. In fact Mr. A. Lloyd-Webber was so impressed that he bought one after three days of recording and by all accounts is now threatening the time schedule of "Evita" by insisting on lengthy demonstrations to everyone who comes to his flat!

The layout of the controls, which, at first sight, might appear confusing, is in fact very logical and simple. There are, in effect, two synthesizers on display, one being a preset, the other a variable. The preset controls, which are extensive, are located in a single panel running the length of the five-octave keyboard and placed directly above it.

This panel in itself is divided into two separate sets of presets which may be played separately or mixed together with a simple control. They are placed together under the general heading of

"tone selector" and comprise, on channel I; String I, String III, Brass, Flute, Electric Piano, Clavichord I, Harpsichord, Organ I, Guitar I, Funky I, Funky III, Memory I, Memory III and Panel. Channel II offers String II, String IV, Brass II, Brass III, Bass, Clavichord II, Harpsichord II, Organ II, Guitar II, Funky II, Funky IV, Memory II, Memory IV and Panel.

Channel II is placed directly under channel I so that the four string sounds, for instance, appear together in a block. Anything from channel I can be mixed with anything from channel II but two sounds from the same channel cannot be mixed. The preset sounds in general are extremely good in themselves. They can be modified, but only by the controls which are placed in their panel — they aren't touched by the modifications available to the "variable" section. However, the modifiers provided are quite extensive. Working from the left hand side of the panel they are as follows. Firstly, an overall pitch knob affects the overall pitch of the instrument. Next to that a "detune" tab makes available the facility of detuning slightly channel one from channel two — for the sort of effects that all synth players will be familiar with.

A ring modulator comes next with controls for attack time, decay time, depth, speed and modulation. A sub oscillator with four wave forms can be used to modulate the oscillator, filter or voltage controlled amplifier for vibrato, wah-wah and tremelo effects. There is a mix tab which varies the balance between the two channels. A brilliance lever changes the tonal texture — within a quite considerable range — and lays next to a resonance tab which is used to emphasise a specified frequency.

The next little section of four controls takes a bit of getting used to — but it's worth it. It's the touch response section, and it's this which makes some of the sounds, in particular the string sound, so realistic. Frequency and filter can be modified by a sub-oscillator and brought into action simply by pressing a little harder on the keyboard.

The weight of the touch determines the amount of modulation. In practice, this means that if you are using a string tone, vibrato can be added after the note is struck, and because the subsequent

weight of touch affects the rate and amount of vibrato, the result is extremely natural — vibrato is not mechanically "switched on" at a constant rate; it is introduced, quickly or slowly, and has those imperceptible variations which depend on the touch that real strings would have.

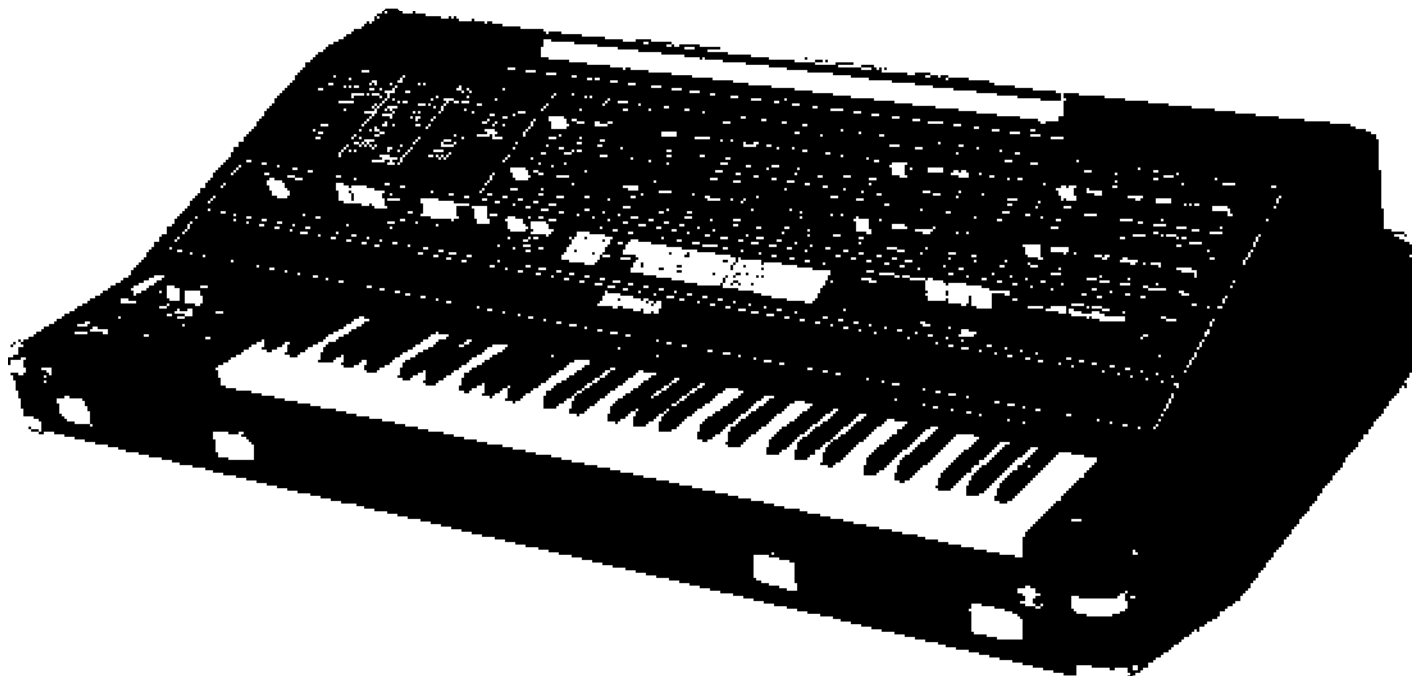
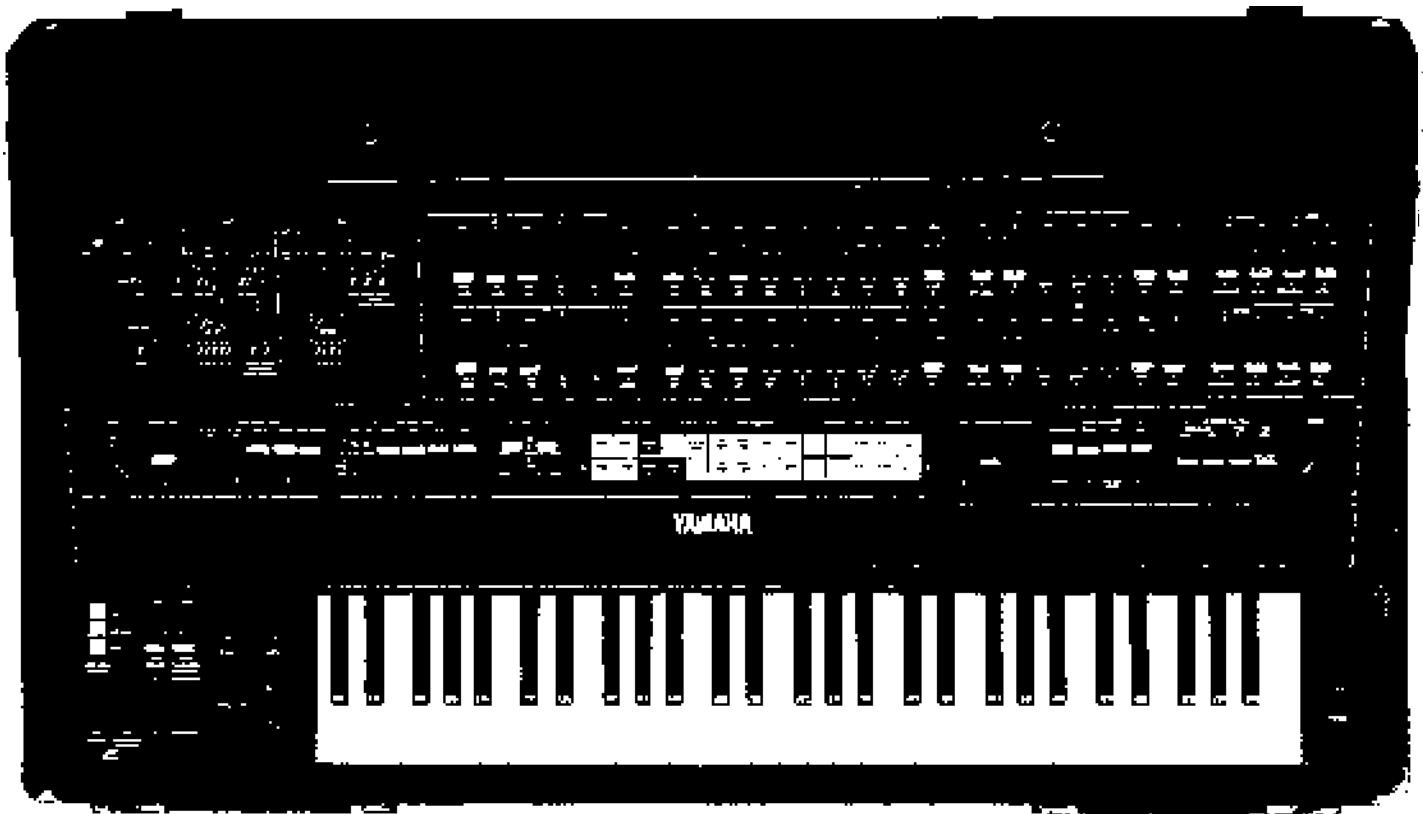
As I said, this feature takes a little getting used to — at first you tend to press too hard and end up with aching fingers! However, the results are certainly worth it. For a good example of the Yamaha string section, take a listen to the Gary Moore solo album, which is to be released shortly. Don Airey from 'Colosseum' was on the "Paganini" sessions and played me one track from Gary's recently completed album which is just Yamaha string section and guitar, it's an example of what the "strings" can sound like in the hands of a really good player. Further controls complete the panel; pitchbend, and keyboard controls consisting of low and high brilliance selections and the choice of high or low level.

Before leaving this section, I must remark on virtually the only control on the whole machine that I miss. On the preset sounds, there is no facility for varying attack. This is particularly important for strings, and I find the omission puzzling. If you want, and are able to set up a good string sound on the variable section, on the other hand, you will find this facility. However, even there I would have preferred a wider range.

Both channels on the preset section, by the way, can be varied by the "footage" control which may be independently set at 16', 8', 5 1/3', 4' 2 2/3' or 2'. Incidentally, some very interesting harmonic effects can be obtained by setting each channel harmonically at odds with the other — try setting one at 8' and the other at 5 1/3' for instance.

A set of overall controls set to the left of the keyboard give chorus and vibrato effects. Sustain, portamento and foot pedal selectors for wah-wah and expression are provided as is a very interesting automatic "glissando" effect.

The top part of the synthesizer's control panel is given over to the variable section. To go into too much detail would be pointless and very lengthy. Suffice to say that two identical panels enable you to set up your own "presets";



the two choices can then be brought into operation at the touch of a tab — and mixed together just as the factory presets can. The waveforms available on this part of the instrument are sawtooth and square; the square wave can be subjected to pulse width modulation. V.C.F. and V.C.A. sections are provided with A.D.S.R. on both low and high pass filters with attendant resonators on the filter section.

To the left of the panels is a flap with a diagram of the synthesizer's rout-

ing. Underneath, there are four memory banks with mini-levers that have exactly the same function as the levers in the programmable section. This brings the players own "preset" sound selection potential to four instantly-recallable sounds.

#### Conclusion

The keyboard products from the Yamaha factories just seem to get better and better, and this latest addition, to my ears, has perhaps the most potential of anything so far (excluding of course

the "Dream Machine" retailing at around £40,000!).

It's a beautifully constructed musical instrument from any angle — the layout is good, the design and appearance excellent and the sound and musical potential extremely satisfying.

At 220lbs, it is rather heavy and its dimensions are quite large — 47½" x 37¼" x 27 5/8". It does, however, have the feeling of being expertly crafted. All in all, it's a superb synth and I love it.

# IN BRIEF IN BRIEF

## On Test: Roland Boss CE-1 Chorus Pedal

Price: £105 (ex VAT)

One of the best-known features of the excellent Roland amps is the Jazz Chorus effect which is built into these units. A flick of a switch gives Roland users a sound which can be described as "ethereal" or, more basically, making a six-string guitar sound like a 12-string.

This effect is now available in pedal form so the chorus effect can be obtained through any amp. What the CE-1 does is split the incoming guitar signal so there are two sounds with one slightly off-pitch with the other.

The CE-1, while being an expensive unit, is certainly one of the most desirable pedals to come IM's way for some time. We fell in love with the Chorus effect because it does not stray too far away from the original sound. It can make your playing sound sweeter without making you feel you have lost control over the basic sound of a guitar and amp alone.

The pedal is a dual-effect unit. Apart from the chorus mode there is a Vibrato sound that can be obtained and varied for depth and rate. It is possible to set the chorus and vibrato so they sound very similar. But as some amps already have vibrato circuits built-in (i.e. Vox, and Fender) it may have been better on Roland's part just to have the chorus effect and so, presumably, bring the price of the unit down. Guitarists will be buying the CE-1 primarily for the Chorus and it seems the Vibrato will not be used enough to justify its inclusion.

The unit is one of the best-made pedals we have seen. The chassis is of quality die-cast steel and the layout has been done with taste and an understanding of a player's needs. The inclusion of LED level and peak indicators gives a player instant monitoring of the unit and the effect on/off and chorus/vibrato switches are placed well apart so there is no excuse for clumsy foot fetishists to hit the wrong button.

The CE-1 is mains operated; good, as you don't have to worry about batteries flattening and bad, if you can't get near a plug on stage. Still, you can't have everything. Other facilities on the CE-1 include an output for stereo and a high and low input adjustment switch.

To conclude, this is one of the few pedals we pickers here at IM would love to own (and believe us, we get enough pedals sent in for review to know) but we did have to be revived after Roland distributors Brodr Jorgensen told us the price. Still, the CE-1 is in hot demand so that must prove that musos will pay anything for quality. And quality is something you are certainly going to get with the CE-1. Even if it does put you on beans and toast for at least a month.

Ian White

48

## Review of: D'arblay Sound Studio Workshop

Price: £30

This is a rather unusual package in that it is more or less a comprehensive course in sound and recording techniques. The set includes six cassettes and eight accompanying booklets dealing with everything you would want to know about the nature of sound and recording studios. The first cassette covers Frequency, Sound Waves, Equalisation, Compression and lots more. Going through the six cassettes enables you to learn all about many aspects of sound recording including Reverb, Echo, Wow, Flutter, Dropouts, Fades, Distortion, Effects and Balancing.

The last cassette is particularly informative for studio "virgins" as it deals, in detail, with a typical session and the problems encountered. D'arblay have been wise by alternating the narration with excerpts from an actual session. For anyone who hasn't done any studio work but has "seen it all" in Rock Follies and the like, these cassettes really tell it like it is.

The cassettes and booklets are not all you get for your £30 - you get a free visit to Anemone Studios in London so you can see some of the equipment in operation. They also offer promotion for you and/or your material by an arrangement with Theatrical And Musical Promotions. Purchasing the D'arblay Sound Studio Workshop automatically entitles you to submit tapes of your material to the company, who will listen to the tapes and, if they feel that you or your material can be promoted, will outline their proposals for your consideration. If not, your material will be returned with a written report. Various A&R departments have agreed to listen to material submitted from Theatrical and Musical Promotions, so this obviously saves you a lot of time and effort hawking tapes around to different companies - a nice idea, almost worth the cost of the package alone.

You are also automatically entitled

to the benefits of their Sound Swap Shop, a facility whereby you fill out the enclosed form giving details of your interests and abilities. This form is then held on file at D'arblay. It's a kind of musicians' register. Should you need an instrumentalist, producer, writer, singer etc., introduction can be effected free of charge and any allied meetings can be held in their own conference rooms, again free of charge. In addition to people looking for writers, artists, engineers etc., other studios have expressed interest in this service and D'arblay themselves are often in need of session musicians, engineers and the like so it's a very worthwhile concept.

All in all, a unique and very helpful idea from D'arblay. A complete and comprehensive package, well worth £30 of anyone's money.

Eamonn Percival

## Review of: The Art Of The Drummer

Price: Book £3.50 Cassette £3.50 (50p post and packing)

The most vital part of a drummer's career is his first few months of playing. It's this period when his attitude to the instrument is formed, when he'll pick up habits that'll probably stay with him for the rest of his career. Some good, some bad, but unless he takes some positive steps to control his development he'll never have control of his drums.

Some drummers take to reading easily - they enjoy plodding through written exercises eager to get to the next page. Others like myself have always found it a total bore of the greatest magnitude. I've always tended to play with my ears rather than my eyes. But learning to play drums is a three way exercise - you need your hands, your ears and your eyes.

That's where "THE ART OF THE DRUMMER" comes in. It's a new book and cassette by John Savage that's more than just another collection of rudiments for bookworms. It's written for the drummer who can't read, or





# IN BRIEF IN BRIEF

reads very badly but would like to improve his technique. All that's required of you is that you use the book and cassette properly, going through each lesson with patience and determination. I just wish this book and tape had been around when I'd started.

The book is broken into 22 lessons each starting with a basic exercise which is also reproduced on the tape with the exercise number announced before each one. The most rewarding aspect of each lesson is that John works the exercises into a playing part, letting you hear what you are learning in action, this brings the exercise alive as the drummer feels a sense of achievement in being able to put the exercise to some use. The Art Of The Drummer is available from John Savage's Music Centre, 71-72 Norfolk Street, King's Lynn (Tel: 4026).

**Andrew McCulloch**

## On Test: Di Marzio Acoustic Transducer Price: £28 (ex. VAT)

It is now the turn of that esteemed pickup manufacturer Di Marzio to produce a transducer that will amplify an acoustic guitar while preserving the natural sound of instrument. This is more difficult than it sounds and some transducers we have seen are impossible to use at a decent volume on stage because of the feedback problem.

The Di Marzio differs from the tiny oblong shape that characterises other popular transducers such as the Ibanez bug and the evergreen Barcus Berry. The Di Marzio is round and resembles the business end of a doctor's stethoscope.

When attached to the top of an acoustic guitar it gives a fairly faithful reproduction of the instrument's tone. The actual sound can be modified by moving the pickup around various parts of the guitar top but I found the best "flat" sound was obtained by sticking the pickup on the bridge of my guitar.

Unfortunately I didn't get the chance to use the Di Marzio acoustic pickup in a 'live' situation so I don't know how it would perform at a gig. But tests in my flat showed that the same old feedback problem could exist with this pickup although certainly to no worse degree than any other transducer. Perhaps feedback was aggravated by the fact that the cable was so short: strange as Di Marzio are the type of people who have a good idea of what musicians need and short cables aren't on the list. The jack-plug end of the cable was one of those 'orrible sealed plastic affairs which means that if anything snaps inside, instant repairs are impossible as the whole end has to be cut off and a new metal-cased plug transplanted.

The pickup is attached to the guitar by means of a putty which is claimed not to mar the guitar's finish although I had to use a bit of Pledge on the Gibson to remove some putty deposits after detaching the bug. Still, the pickup was terrific to work with plugged directly into a tape deck and if you are a home-recording buff it saves a lot of problems caused by ambient noise when you're playing with a mike stuck precariously in front of the sound hole. It would probably be good for DI in the studio although under studio conditions, normal miking isn't such a problem as it is in the home when you're under the flight path to Heathrow.

The Di Marzio pickup is a good accessory at a reasonable price. A decent length of cable and a steel-cased jack plug would improve the package.

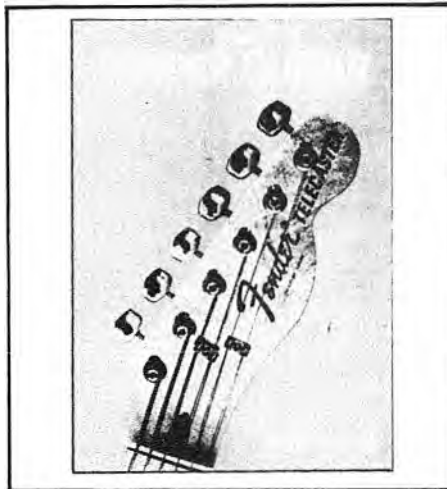
**Ian White**

## On Review: The Fender Guitar by Ken Achard Price (See text)

This book is a companion volume to Ian Bishop's Gibson guitar history which was published earlier this year. Ken Achard, who now works for Peavey (UK) has obviously had a big love affair with Fender and has obviously done his best to impart his considerable knowledge of Fender, both the man and the guitar.

The book traces the evolution of the Fender company from its first steps in 1947 through to the formation of Music Man which is of course a reincarnation of Fender. Ken Achard has done a lot of research into all the models that were produced by Fender and apart from comprehensive Tele, Strat, and Precision histories, we get a good look at the obscure Coronado range as well as all the Fender flat tops.

The great strength of the book is the wealth of information on the technical evolution of the guitars. In this respect the book seems primarily aimed at musicians who are already Fender lovers and require details on the history of Fender specifications. In this respect, Ken Achard's work is absolutely thorough and he has even managed to reproduce original patent drawings of the earliest Fender guitars as well as noting all the dimensions and construction of the guitars he covers.



As a Fender musician's handbook, "The Fender Guitar" is an indispensable book. However I'm a bit sorry that Ken didn't give the book wider appeal by colouring his efforts with more of the human interest surrounding the Fender legend. Nowhere in the book is there even a picture of Leo Fender who I'm sure would have consented to give an interview to someone so obviously interested in his products.

I also would have liked to have read comments from famed Fender users such as James Burton and the innumerable Strat users who have ridden to fame on the back of the Fender guitar. Another criticism I have, (and this is probably more down to the publisher than anything else), is the lack of any colour pictures and the relatively poor quality of the monochrome photographs that are used. Perhaps it was felt that demand wouldn't warrant such lavish treatment. I also would have liked to see pictures of the Fender assembly line and perhaps photographs of Leo Fender's first workshop.

To conclude, The Fender Guitar is an admirable technical reference work for Fender people. But I feel the book is rather one-dimensional and, as a Fender user myself, I would have really lapped up lots more of what we "hacks" call "human interest".

The Fender Guitar is available by post for £3.10 from Musical New Services, 20 Denmark Street, London WC2H 8NE and is £2.95 in selected shops.

**Ian White**

# SMALL THINGS

by Stephen Delft

As you read this, we should be just about at the longest night of the year - the Winter Solstice. This is traditionally also the time for Festivals. Whichever one you go in for, may I wish you a good one, and that you have good health and wisdom in the New Year.

And now a small New Year present for you. It doesn't look much, but it's free, and it could save you some problems. If you are planning to buy a new guitar - or an old one for that matter - ensure that it does what you want it to do, before you buy it. DO NOT ASSUME ANYTHING. That means, if you want it to work with light strings and a low action, and allow you to bend strings without buzzes, make sure it does all these things before you buy it. Equally, if you want a guitar to work with heavy strings and a high action, and you intend to 'bottle-neck' it with a piece of old exhaust pipe, try that out before you buy it. In this way you are less likely to be disappointed with your new purchase. It also means three other things. (1) You will become a 'difficult' customer. Make it easy on your favourite music shop by explaining what you have in mind, and arranging a time which suits you and the shop. (2) If you ask the impossible, you may not receive much sympathy. (3) If you ask the near-impossible, you must expect to spend a great deal of money to achieve it. Good luck!

Rod  
Argent's

## Keyboards

20 DENMARK STREET,  
LONDON WC24 8NA  
TEL 01-240 0084/5

*The only store offering the complete service to the discerning keyboard musician is now open.*

*Come and see the most comprehensive range of professional keyboards and ancillary equipment available in the United Kingdom including:-*

**SYNTHESISERS** The full range of MOOG, YAMAHA, ARP, KORG, JEREMY LORD SKYWAYS. We also stock the CAT and are pleased to make the OBERHEIM range available in this country for the first time.

**ELECTRIC PIANOS** By FENDER RHODES, YAMAHA, WURLITZER, HOHNER and WELSON.

**ORGANS** The largest range of professional organs in the United Kingdom including the WELSON IMPERATIVE, YAMAHA YC 45D, GODWIN SC 444 P and SC 101 P, KEYNOTE CONSORT, CRUMAR ORGANIZERS, WLM, PARI and second-hand HAMMONDS in stock.

**STRING MACHINES ETC.** By SOLINA, WELSON, HOHNER, CRUMAR and many others.

**WE ALSO CARRY A FULL RANGE OF AMPLIFICATION, MIXERS AND EFFECT UNITS** — including SHARMA, YAMAHA and VORTEX ROTARY CABINETS, PEAVEY, PEARL, ZOOT HORN, YAMAHA, ELECTRO-HARMONIX, BELL, MXR, CARLSBRO etc. etc.

We offer the best after sales service available and our own engineers can undertake keyboard repairs on the premises in our own workshops. We are also in a position to undertake design and modification work.

Our dedicated staff are all gigging keyboard musicians and can offer the best technical advice and guidance on all aspects of keyboards.

Our aim is to offer the best service available and to keep ahead of all developments in technology and equipment. We will be holding keyboard clinics, on a regular basis, by professional musicians and demonstrations in the shop.

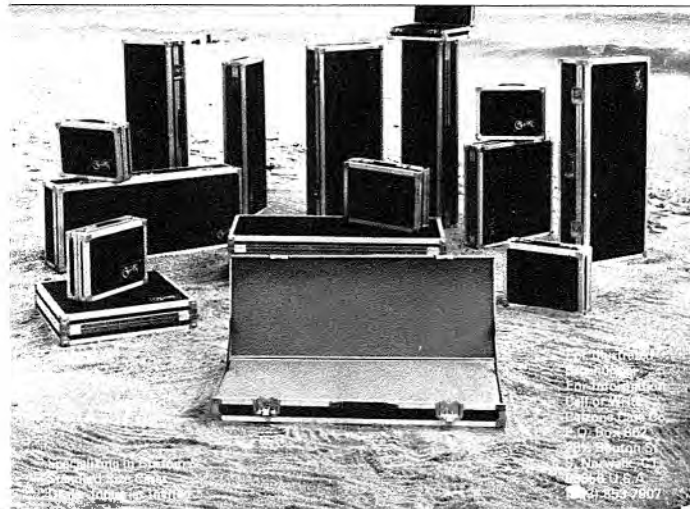
Rod Argent's  
Keyboards

A home from home  
for all Keyboardists  
where the accent  
is on quality and  
service.

# CALZONE

Cases...  
hit the road!

## Specializing in Custom and Standard Size Cases



Veillette-Citron Guitars

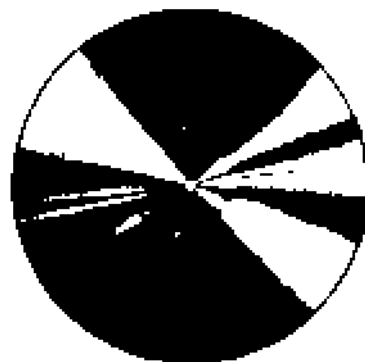
DISTRIBUTED BY SUNDOWN MUSIC, INC.  
3108 QUENTIN RD., B'KLYN, N.Y. 11234  
212-376-1955

# HAMMA 880

-right in the meat of the market

You can pay much more for a set of drums. And a good deal less. But Hamma 880 sits solid in the middle, right on the point of value. With substantial, well-finished fittings. With the meaty, solid sound you need. With the reputation of Rosetti and one of the world's great drum-makers solid behind it. That's why we call it 'The professionals' kit'. Because the people who know value, know Hamma.

Cymbals? Team Hamma with Izmir, or K. Zildjian. Or, if you want to keep the total down, try new Bronze 880. Whichever you pick, dealers are talking turkey about terms — if you stay with Rosetti right through. Send the coupon for more details.

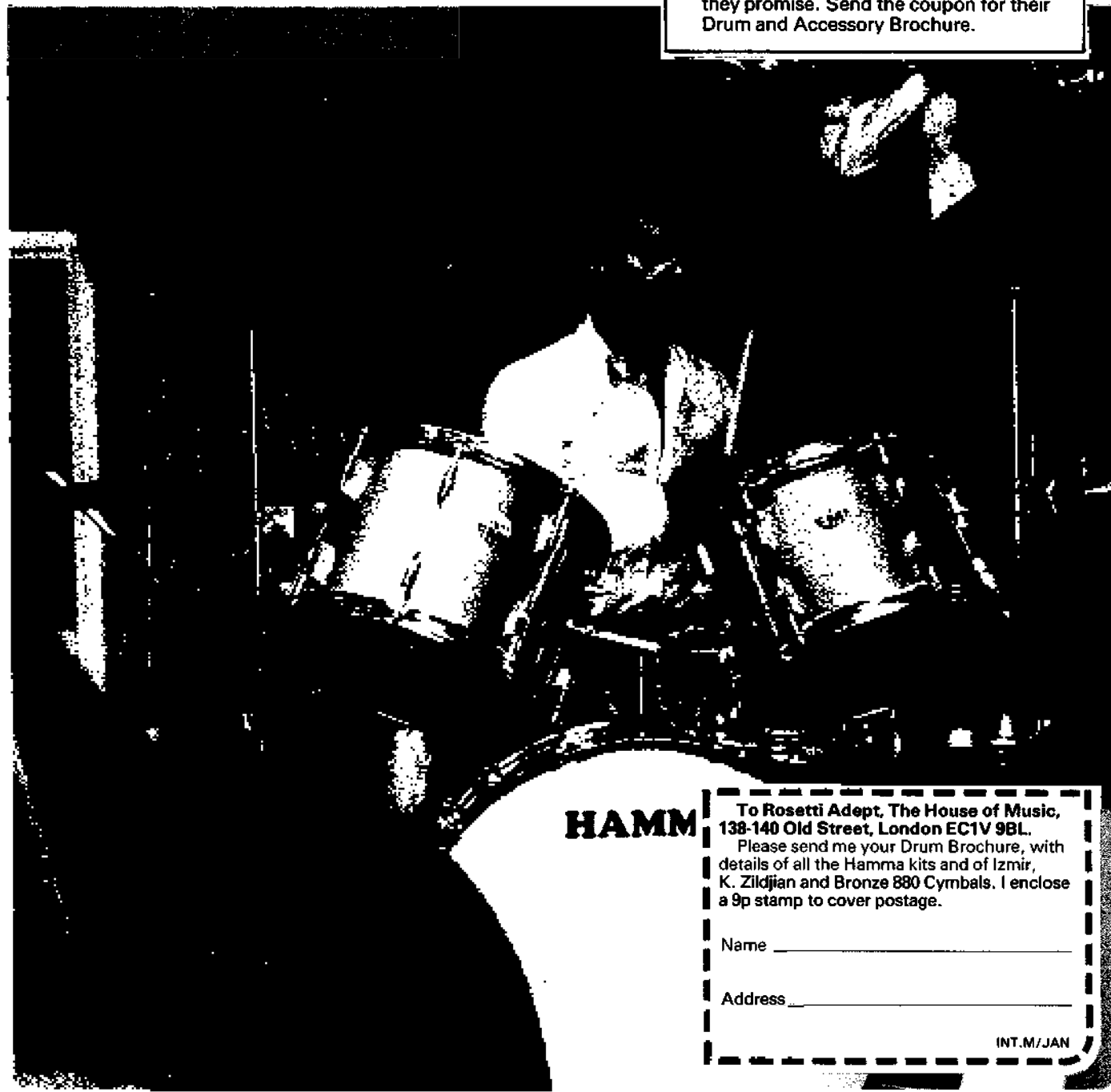


## & BRONZE 880

- less brass, more brilliance

Made to cost less, from a new metal mix, these new cymbals found a mind of their own. With a fresh, brilliant sound. With a new visual texture. With a very masculine response.

And again they're backed by the big name. Rosetti will make sure you get all they promise. Send the coupon for their Drum and Accessory Brochure.



**HAMMA**

To Rosetti Adept, The House of Music,  
138-140 Old Street, London EC1V 9BL.  
Please send me your Drum Brochure, with  
details of all the Hamma kits and of Izmir,  
K. Zildjian and Bronze 880 Cymbals. I enclose  
a 9p stamp to cover postage.

Name \_\_\_\_\_

Address \_\_\_\_\_

INT.M/JAN

# Express yourself with

# *Antoria*

guitars.



Please send more information on *Antoria* electric guitars

Name \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

1M1/75

*Antoria*

electric guitars

Distributed by



JAMES T. COPPOCK (LEEDS) LTD

Royds Lane Leeds LS12 6LJ England

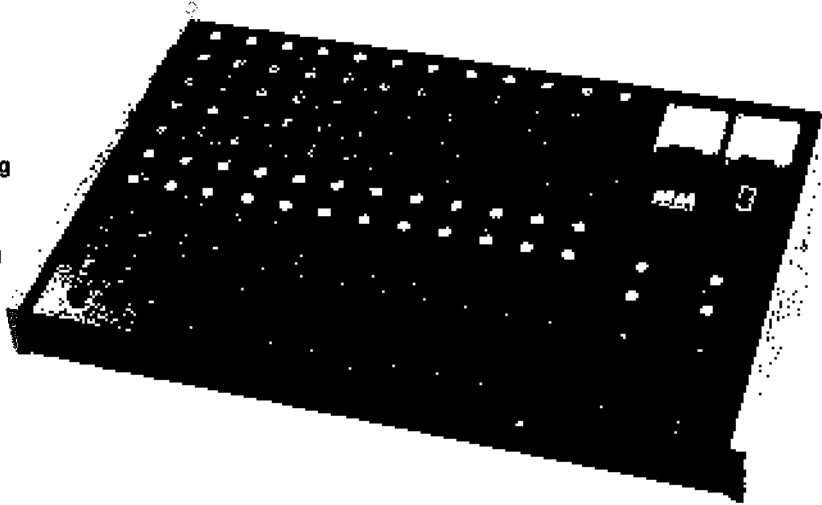
# MM ELECTRONICS

## STEREO AND 4 TRACK MIXING CONSOLES

### MP175

The original MM Mixer, featuring

- ★ 4 Band channel equalisation.
- ★ Echo and foldback mixes.
- ★ Stereo outputs with metering and phones monitoring.
- ★ Studio, quality, noise and distortion.
- ★ Also available in 8 and 16 channels and with Cannon connectors.



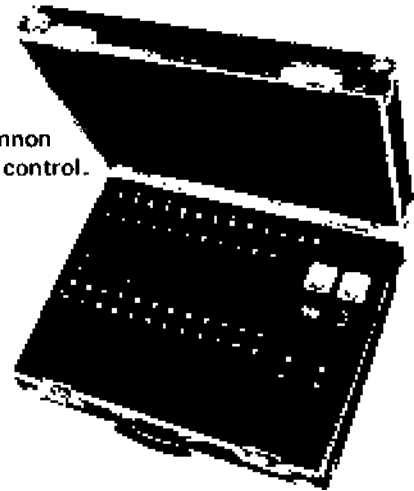
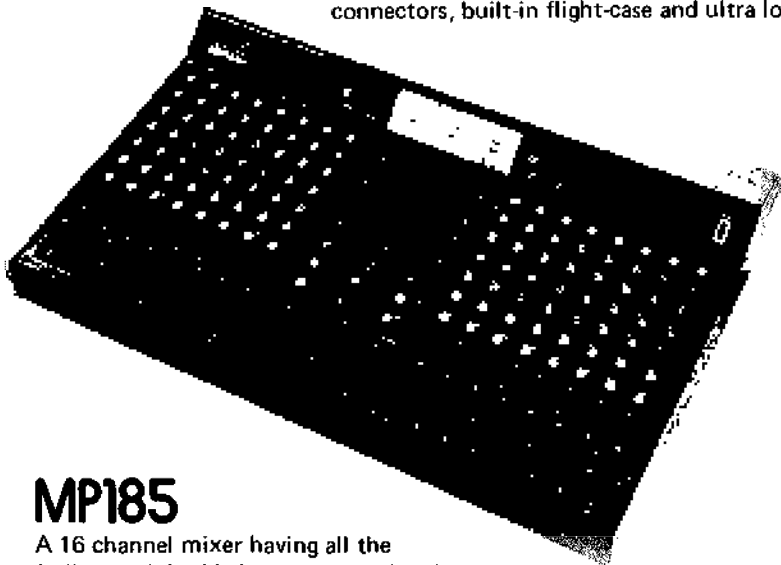
A 4 track model is also available which is fitted as standard with;

- ★ Routing Switches
- ★ Pre-fade listen on each channel
- ★ Talkback Routing
- ★ High Quality Program Limitors on each output

The ideal 4-track recording mixer

### MP275

The "Export" version, fitted as standard with Cannon connectors, built-in flight-case and ultra low bass control.



### MP185

A 16 channel mixer having all the facilities of the MP175, and additionally

- ★ Pre fade listen on each channel with headphones and metering.
- ★ Peak program (overload) indicating lights on each channel.
- ★ Graphic equalisers on each output, for equalisation of auditorium acoustics.
- ★ Electronic crossovers on each output.

The ideal public address mixer.

Other units available include 16 - 4 and 16 - 6 foldback mixers and 16 - 8 recording mixers, all at under £1000.

For further details of these and other models in our range please telephone Royston (0763) 45214; or contact your local MM dealer.

MM Electronics, Kneesworth Street, Royston, Herts SG8 5AQ. Tel: Royston (0763) 45214.

Please send me details of M.M. products.

Name \_\_\_\_\_

Address \_\_\_\_\_

# Reed all about it...

by Alan Holmes

It always happens at an important recording session or gig. There you are in the studio halfway through a session and you notice that your saxophone is getting increasingly difficult to blow, this gets rapidly worse until it feels like a second after you blow before anything happens. At the same time the sound is getting thin and strangled and the bottom notes are starting to crack and you hear personal messages from the producer in your headphones suggesting digit removal. In despair, you look for another reed open up the box and there grinning up at you, are rows of shiny new reeds. You are entirely at their mercy. With the resignation of a Russian Roulette player you select one hoping it will work . . . . .

There you are before the first gig of an American tour, the warm-up date at an out-of-the-way college was cancelled and this is Madison Square Garden, the "big one". But it's O.K., the sax was sounding great at the sound-check. You are just tuning up with the guitars in the dressing room with five minutes to go. One of the guitar players breaks a string and calls into the corridor for help. Suddenly, the room is full of speeding roadies, one of them brushes past and your reed is in tatters. With shaking hands, you open the box of reeds. They grin up at you and you are entirely at their mercy. . . . .

Sounds like a nightmare but, as a professional reed player, you constantly stake your reputation and, in the case of a session musician, your career, on a sliver of Mediterranean weed. This sliver represents a very small fraction of what was originally a thirty foot pole, literally a giant reed, a weed which grows mainly in the countries bordering the Mediterranean Sea.

Although the industry is centred around the Var district of Provence in the South of France, the majority of the equally suitable Spanish cane is exported to France so that not all French cane is actually French grown and high quality cane can come from Russia, Greece, Yugoslavia, Italy, North Africa, Chile, Mexico and California.

The plant resembles its larger oriental cousin, bamboo, and is often confused with it as its stalk or stem is divided into four inch to twelve inch sections by ring-like nodes. The largest diameter is around two inches and the smallest suitable for reed cane one inch.

It takes around five years from the first planting for the plant to reach full growth although the size of the poles varies in diameter so that a field will contain poles with ages varying from a few months to three years. Only those poles at least two years old but not more than three are suitable for reed cane so about 25% of crop will be suitable for reeds. The majority will be made into split cane sheathing, basketwork, or be used for roofing or reinforcement for walls.

Reed poles are harvested in the cold, winter months while the plant is dormant and climates without a sufficiently cold winter do not produce poles of the required elasticity. After harvesting, the poles are cured in three basic stages of drying, sunning and seasoning, with newly-cut poles being tied in bundles of five to ten and leaned upright outdoors, protected from the direct rays of the sun by bundles of the unsuitable cane. In about four months, when most of the moisture has gone, the sunning stage commences during the summer months of May and June when the poles are cut down to six to eight feet long, the height from the base depending on the diameter. They are leant against long drying racks and rotated a quarter of a turn each day until the greenish colour has gone and, if the sun is not very strong, this is supplemented by kiln drying.

After sunning, the poles are stored in sheds for one or two years and the now golden yellow cane cut each side of the nodes into lengths which are then sorted by diameter and the cracked or discoloured sections discarded. The waste is enormous with seven or eight six foot long poles required for each pound of reed cane or only about 10 reeds per pole. Don't forget that 25% of the crop only is suitable for reeds and a suitable piece of cane

takes around five years to grow and cure. This might account for the very high price of reeds.

After the cane has been cut into tubes, it is sent off in 50lb bags to reed makers all over the world where the tubes are split lengthways into sections after being sorted into the respective instrument diameters (1" diam for clarinet 1 1/8" for alto and so on). It is then shaped through several stages till the final cut, in the case of the major manufacturers, using diamond cutters, with the remarkable accuracy of within half a thousandth of an inch at the tip which is around 5 to 7 thousandths of an inch thick depending on the maker.

After the reeds are finished they are then graded for strength by machine, so that the strength of a reed depends on the hardness or brightness of the cane. This explains why a medium reed scraped down to blow the same as a medium soft has a crisper sound because the cane is harder.

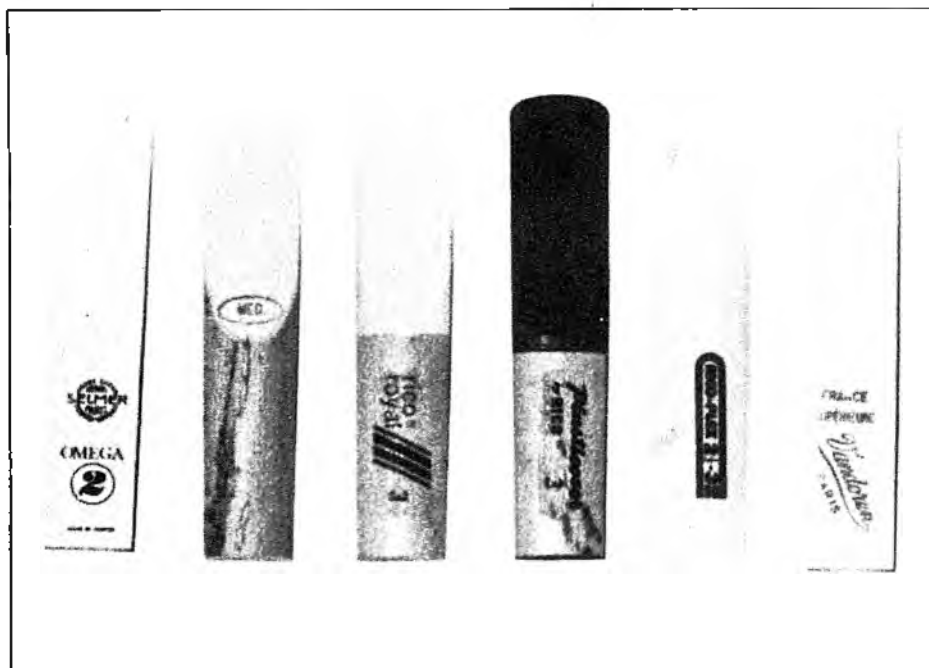
As the only moving part in the sound production of the saxophone, the reed has a formidable task. It must vibrate at all the frequencies in the range from about 200 times a second to 2000 times a second, depending on the note being played. At an average pitch of 1000 cycles a second, this means the reed moves 60,000 times a minute and explains why they have a short life before wood fatigue sets in!

Whilst the reed is vibrating it is also acting as a flap valve for the air stream and wrapping against the facing of the mouthpiece to open and shut at the very high speeds of the pitch selected, by the fingering on the saxophone. The longer air column of a low note means that the reed has more air to move so it goes slower than for the short air column and light load of a high note.

Reeds also play an important part in the tone of the instrument and different sounds and playing characteristics will be obtained from various makes. Although made from similar cane, the way in which the taper and shape is cut will affect the reed's performance.

Many reed problems can be eliminated before they start by using top grade reeds made by Rico, La Voz, Selmer, Vibrator, Van Doren, Roy Maier and Symmetricut. Generally speaking, as with most things, you get what you pay for and a cheap reed means a cheap sound. All of these brands have a slightly different cut. For example, the most popular saxophone reeds, Rico and Rico Royal, differ in that the Royal is made from brighter cane and the area behind the tip extends further back into the 'heart' of the reed. The thin sides extend further back resulting in more of the reed vibrating and a brighter sound than the standard. The La Voz has more wood left in the 'heart' and this produces a woodier sound, more like the French cut but not as reedy. French woodwind sounds are inclined toward reedy, thin, transparent tones compared to the thick, heavy, German sound.

You will find it worthwhile experimenting with brands of reed to find the one that suits your mouthpiece, sound and style. I recently tried a Rico Plasticover which is a high-quality reed coated with a thin layer of a special plastic which lets a very small amount of moisture reach the cane but not enough to get it waterlogged. Not only does



the reed last longer but I was able to play a ten-hour, non-stop recording session without the reed changing its characteristics which alone justifies its cost.

There are the plastic reeds which were popular in the war years when cane was hard to get but, regardless of manufacturers' claims, they do not have the same sound as cane, in fact some of them sound very strange, almost like a synthesizer.

Although the cost of a box of reeds seem high, it is only the same as a really good set of guitar strings or what a vicious drummer might spend on sticks in a week, and it is false economy to buy them in small lots of three or six as the better reeds may have already gone from the box kept for small quantities. At least if you buy a sealed box, you have a chance of getting some good reeds out the ten or twelve.

Here are some useful ways of getting more good ones from your box:- New reeds need to be prepared before trying them to see how they play. So first, moisten the reed thoroughly with saliva and put it on a smooth, hard surface, preferably glass. This helps to seal the tubes that make up the fibrous

structure of the reed and also helps to remove the crinkles in the tip, as to seal effectively against the mouthpiece the reed needs to be perfectly flat itself. After three or four minutes, rub in the moisture, towards the tip. The mouthpiece cap or thumb can be used. Repeat the wetting and rubbing till smooth and leave stuck to the glass for half an hour. Then wet again and try them, put little marks on them for too soft, too hard etc. but beware a reed that plays perfectly straight away as, by the time it gets broken in by playing, it is likely to be too soft. Ideally, pick four out which have a good sound but which are slightly too hard and keep them in a reed clip such as the Reedguard. Not only is this the perfect way of keeping a replacement reed on you, it also keeps the reed flat and stops it crinkling. Play on all four, don't leave one reed on the mouthpiece for weeks till it has had it. By the time the reed is finished you will have altered the way you blow to compensate for the increasing softness of the tired reed, with the result that when you come back to a new one it will seem much too hard.

So, change reeds after every couple of

hours playing, or just pick a different one each day. Always remove the reed from the mouthpiece after playing dry it, and put it back in the clip. If you leave it on the mouthpiece it will warp. When fitting the reed, put the ligature on the mouthpiece first then slide the reed into it. This way, you won't split the tip when putting the ligature over the reed in a hurry.

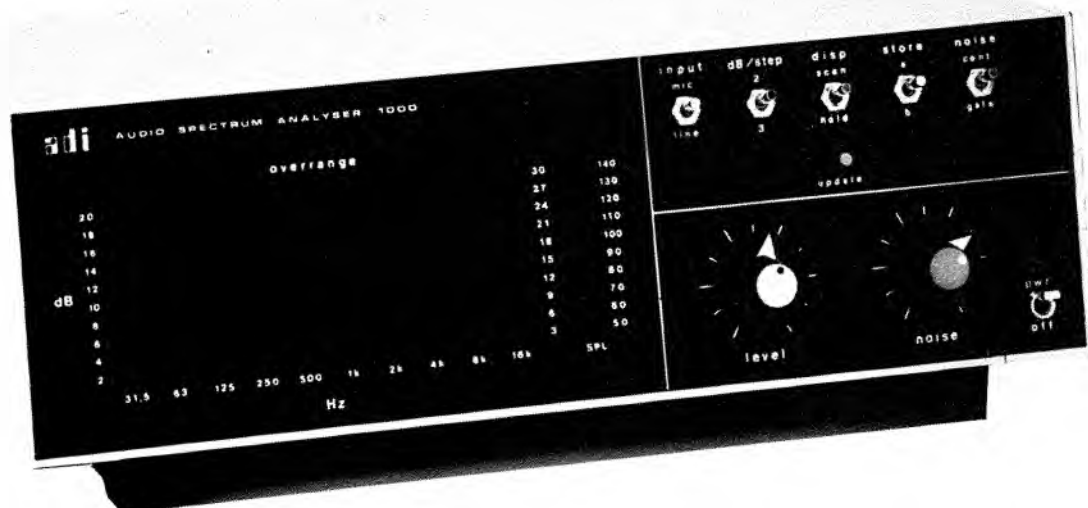
Soft reeds can be strengthened by clipping a fraction off the tip with a reed cutter. Try to get one that suits the shape of your mouthpiece. Hard reeds can be softened by carefully scraping the back while the reed is flat on the glass using the sharp edge of a mouthpiece cap held at right angles. Test frequently, and keep a quarter of an inch away from the tip, removing an even amount from the whole back of the reed. This method of scraping can be used lightly to remove deposits from the reed which build up after some hours of use and also to brighten the reed which has gone dull by removing an even layer of dead wood.

Look after your reeds and they will look after you, neglect them and they could ruin your career.

An excellent free booklet on reed cane is obtainable from Nova Corporation, 8484 San Fernando Road, Post Office box 661, Sun Valley, California, 91352. U.S.A.

# adi

## audio spectrum analyser



### APPLICATIONS:

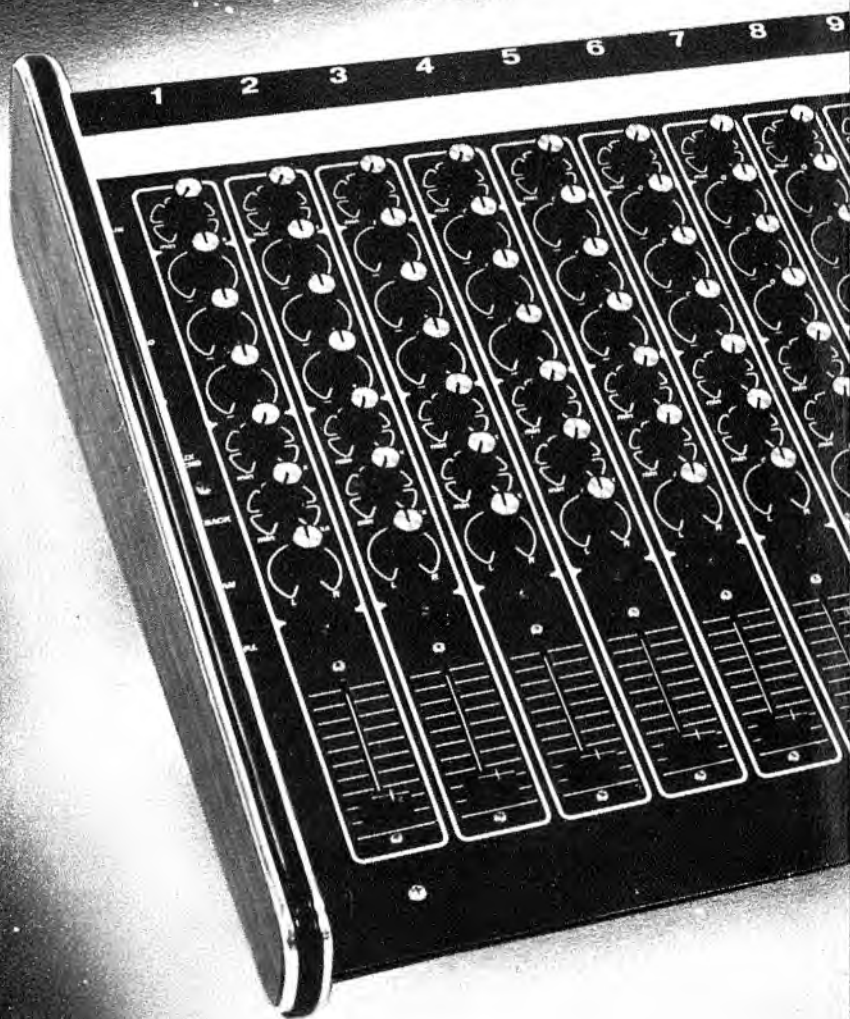
- Loudspeaker and room frequency response
- Equalisation of acoustic environments
- Real time analysis and data storage

### FEATURES:

- Two Digital C-MOS memories
- Built in continuous gated pink noise generator
- Calibrated condenser microphone supplied
- LED display of all octave bands plus SPL
- Highest quality design

audio developments international corp. 644 Emerson Street, Palo Alto, CA 94301 USA tel: (415) 321-3035 telex: 470 464 ADIC UI

# ELECTRONICS OF THE 8 THE CARLSBRO CONSTELLAT



A high quality 12 channel stereo mixer desk at a reasonable price. Each channel features 3 channel e.q., foldback, auxiliary send, stereo pan controls and slide fader plus an overload protection. Other features are comprehensive L.E.D. display and headphone monitoring of pre-fade mix, stereo output; stereo tape in/out DIN socket for recording plus separate L & R outputs and foldback and channel identification.

The L.E.D. output display (instead of V.U. meters) is for efficient monitoring of output levels. The illumination changing from green to red to indicate overload and distortion.

#### Technical Specifications

Stabalised power supply.

Power requirements @ 240v = 200v - 250v  
(Factory sat) @ 120v = 100v - 125v 50/60 Hz

Power consumption 100 VA

Maximum Gain Lo input - 63 dbm

Hi input - 40 dbm

Impedance Lo 1 K ohm

Hi 16 K ohms

Gain control range Lo 25 db

Hi 27 db

Tone controls Hi + 15db @ 10 KHz

Mid + 15db @ 500 Hz

Lo + 15db @ 40 Hz

Presence + 10db @ 7 KHz

Overload levels + 31 db

P.P.I. indicates @ + 20 db

Output channels (F/b, L & R, Aux. S.)

Impedance 100 ohms

Output range + 10 dbm

Overhead levels + 18 dbm

T.H.D. Better than 0.1%

L.E.D. display

indicates 0 dbm

Aux return 0 dbm

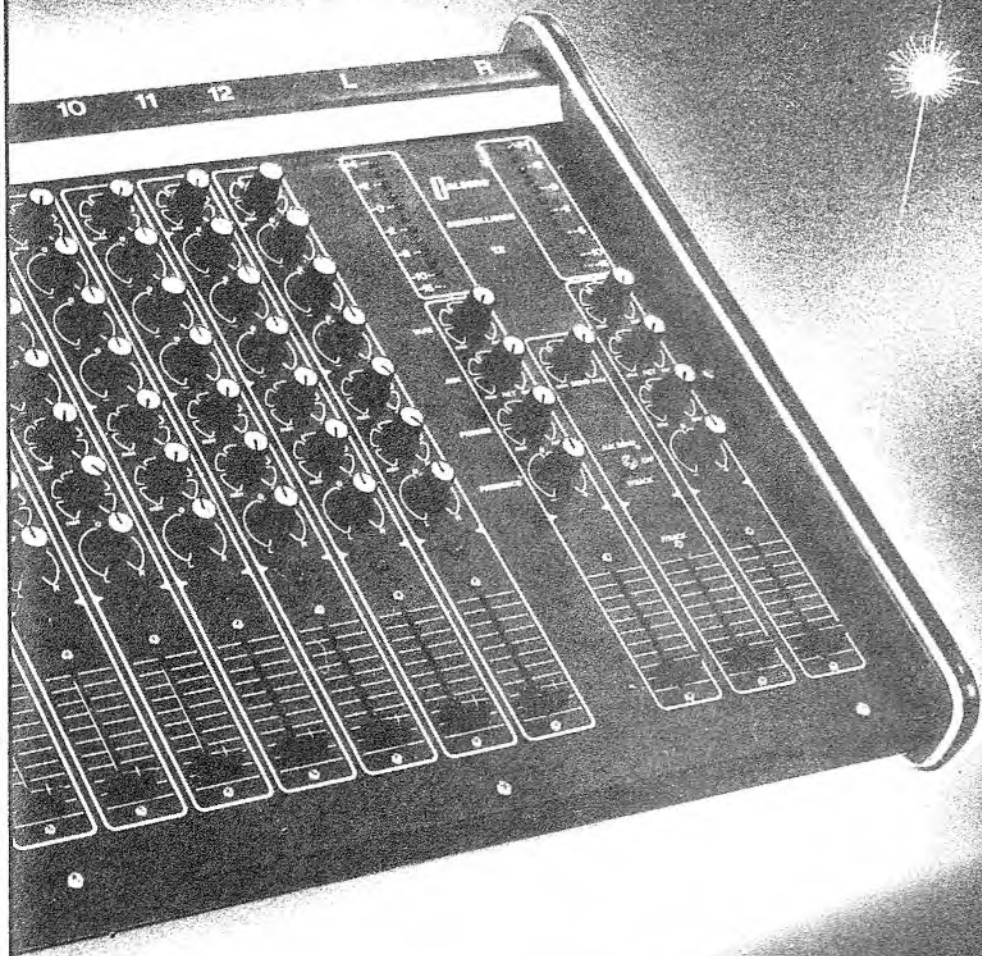
Tape output and return 0 dbm

Height: 10 cms (4") Width: 73 cms (29")

Depth: 48 cms (19")



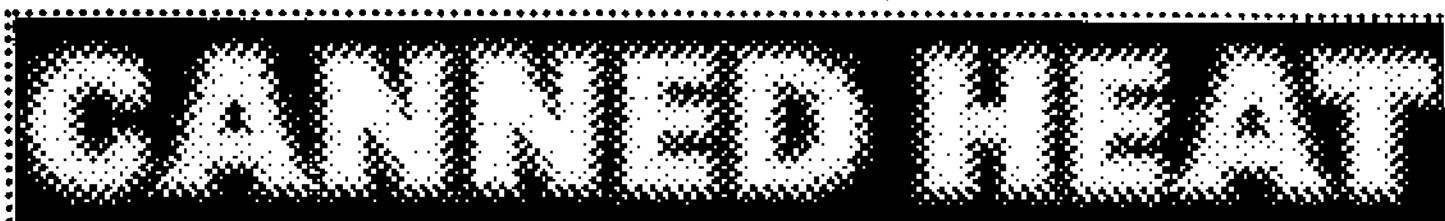
# 0s BRINGS YOU ION MIXER



**SOUND  
EQUIPMENT**

VISIT YOUR LOCAL DEALER  
NOW OR FOR A  
COLOUR CATALOGUE  
CONTACT:

CARLSBRO SOUND EQUIPMENT  
CROSS DRIVE,  
LOWMOOR ROAD INDUSTRIAL ESTATE,  
KIRKBY-IN-ASHFIELD, NOTTS. ENGLAND  
TELEPHONE: 0623 753902



**TWO YEARS ON THE ROAD  
WITH RANDALL  
AND NO BREAKDOWNS,  
THE BEAR SAYS  
"RANDALL GIVES GOOD BOOGIE"**

***Randall***

**RANDALL INSTRUMENTS, INC.**  
1132 DURYEA, IRVINE, CALIF. 92705  
P.O. BOX 10936, SANTA ANA, CALIF. 92711

# National Jazz Centre Planned

Despite having been one of the most vital musical forces in Britain for over fifty years, jazz remains much of a poor relation in this country. Over the years Britain has produced some of the world's finest musicians in this field, yet their talent goes unrecognised by the vast majority and stories of struggling jazz enthusiasts are legion.

However, things are about to change thanks to an enterprising group of people who are raising money to build a National Jazz Centre.

The driving force behind the project is the Jazz Centre Society, the only jazz organisation in the country, which was formed in 1968 to further the presentation of the music and give practical help to musicians and other jazz bodies.

The same enthusiasm which has made the society such a success over the last few years, is evident in the way they have already raised over one third of the £300,000 needed to set up the centre.

Charles Alexander, administrator of the Jazz Centre Society, explained the need for the National Centre. He said: "Jazz musicians meet with all kinds of problems, things like finding rehearsal rooms, places to play and other general difficulties.

We want to have somewhere where they can go for help and information, we really need a purpose-built national centre to meet these demands."

The JCS already undertakes most of this work, but at the moment has only a cramped office to work from which is why a well-equipped new building is vital.

The aim is to provide a performance, administrative and educational centre where the best of British and foreign jazz can be regularly heard in a comfortable, pleasant atmosphere at reasonable prices.

Great emphasis will be placed on providing opportunities for younger less established musicians and co-ordinating jazz in the regions to the benefit of musicians and audiences alike.

The centre will also have a jazz library

and run jazz film seasons as well as handling inquiries from musicians, enthusiasts and other bodies interested in promoting jazz.

Johnny Dankworth, president of the JCS, said: "Since its creation, the Jazz Centre Society have come to recognise that the only way in which the needs of jazz in Britain can be adequately met is by the creation of a National Jazz Centre.

"As well as providing a focal point for jazz performance, the centre will be the first step towards organising jazz on a national scale through a network of regional clubs. The centre will, moreover, place increased emphasis on the educational aspects of jazz, with proper rehearsal and tutorial facilities".

"I believe that the success of this project will, to a large extent, determine the future development of jazz in this country".

The project has attracted the wholehearted support of the country's top jazz musicians and enthusiasts including Mike Westbrook, Ian Carr, Stan Tracey and Spike Milligan.

A plan of the proposed centre has already been drawn up with a main auditorium seating 350 people as the focal point. There will be a retractable screen for cinema performances, and informal settings for smaller audiences.

The centre will be equipped to organise national and regional jazz conferences, to promote jazz festivals and performances, encourage and develop the "Summer School" concept and bring together the requirements of pupil and tutor, musician and enthusiast alike.

In addition to the conference room, office space for about eight to ten people will be required. Rehearsal and tutorial rooms will be provided with capacities ranging from three to 17 musicians, and a conference and seminar room will be allocated for up to 15 people. Archive and library space will also be included.

The society is looking for an old building which can be converted to suit their purpose rather than starting from scratch, but the overall cost of conversion, furnishings etc.,

plus the initial year's rent has been calculated at £300,000.

Apart from the obvious fund-raising and concert events, the JCS have adopted the covenant scheme to bring in most of the revenue. A covenant is an undertaking by a company or individual to donate an agreed sum of money over a seven year period.

The advantages of this scheme are that tax can be reclaimed on all contributions made in this way, thereby increasing the value of the gift by more than 50 per cent. Therefore an individual covenanting £100 a year for seven years is making a contribution in excess of £1,000 to the centre at a "cost" of £700.

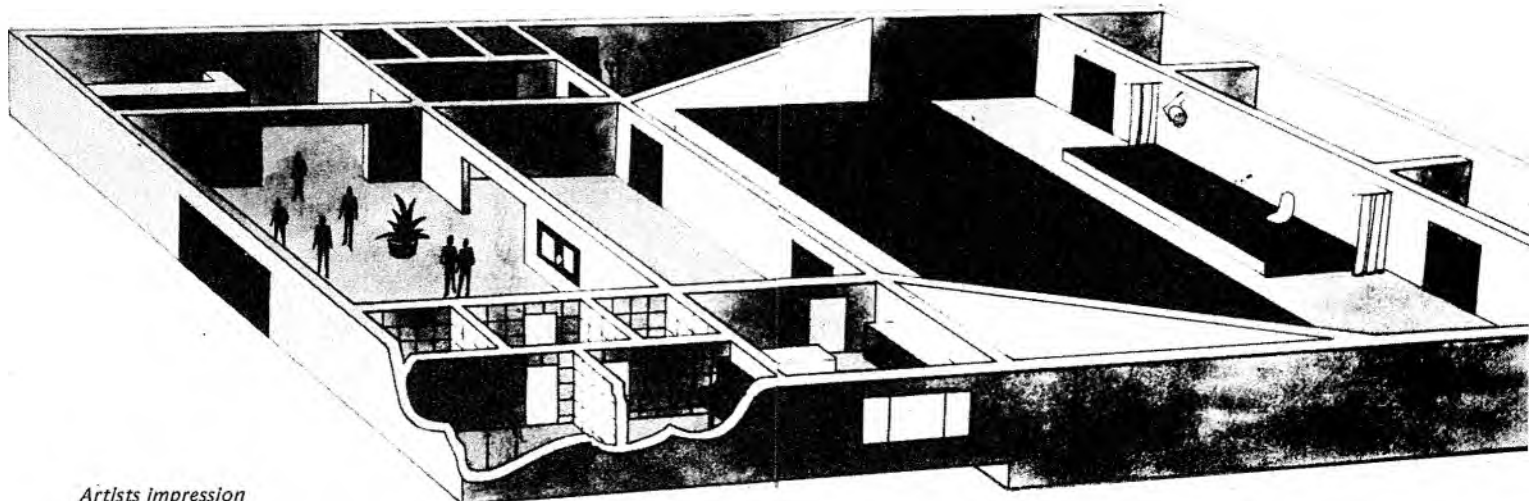
Covenants also allow a loan to be raised in the first year of payment, which will enable the centre to be built before inflation carries the cost beyond reach. Companies paying Corporation Tax receive an additional advantage by covenanting, increasing the gross value of their gift by more than 100 per cent.

Companies in the music business who have already contributed to the appeal are: WEA, EMI, Melody Maker, Music Week, Rose-Morris, Jim Marshall Products Ltd., Kemble, Ivor Maltrants, Bill Lewington, Maurice Summerfield, John Skewes and James How Industries.

Peter Clarke, managing director of Rose-Morris, said: "I think this is a very important and significant development and we support it wholeheartedly. There isn't a centre for jazz, and it is very much an important part of the scene.

"I think manufacturers should be doing something to help people who buy and play their instruments. You have to put something back into that music, and that is why Rose-Morris have become involved. The cost is really small, and I feel it is only right that money from the music industry should be ploughed back into something like this. The Jazz Centre project is very much a worthwhile thing".

Although the JCS have already raised over £100,000, they have still a long way to go and are hoping to interest more companies in the music business for contributions.



Artists impression

# STEEL APPEAL STEEL APPEAL STEEL APPEAL

by Eric Snowball

*Eric Snowball runs the Steel Mill in Maidstone, Kent who are the European distributors for Emmons and ZB pedal steel guitars. He has a background in industrial electronics and has played pedal steel guitar for ten years.*

As the Pedal Steel Guitar is rapidly gaining popularity, not only in Country and Western bands, but in a wide variety of musical situations, I get more and more enquiries about tunings, how they work, how to start playing etc.

This series of articles should answer 90% of the more exacting enquiries that I receive, and should it start somebody somewhere on the road to becoming an accomplished player, will more than have fulfilled its purpose.



First of all, let's put one thing straight. When we think about a guitar, we immediately think about the guitar that has 6 strings, a neck with frets and is played by pressing down the strings on the appropriate fret with one hand and plucking the strings with the other. This is the general conception of a guitar. To prove this point, hand a pencil and paper to your friend and ask him to draw a guitar. See what I mean?

When we talk about a Pedal Steel Guitar, we talk about something completely different from the above, and the only physical similarity is that it also has strings.

For the purpose of this article, we will concern ourselves with the E9th Chromatic tuning, used by just about everybody you hear on Pedal Steel. There are slight differences in this tuning, and those will be discussed later.

The instrument is really a much modified version of the Hawaiian Guitar, the sound of which I am sure we are all familiar with. Open tunings on these instruments were very much to the individual players' taste, but there are certain types of music that cannot be played in certain tunings. This led to Hawaiian-type guitars being manufactured by companies with 2 or 3 necks, each with 6 or 8 strings, all tuned differently thus giving the flexibility required by the player.

One thing led to another and, before long, people were thinking up ideas to change the tuning of the single neck by a system of mechanical devices which raised the lower strings to a pre-determined setting. This of course was very convenient, as the player could then have a great deal of flexibility on a single neck guitar. Progressing to the Seventies, we have today what is probably the most sophisticated mechanical musical instrument on the market and, may I add, the most versatile.

I think at this point we should mention a few players who were instrumental in bringing about these changes and the present day E9th tuning of the instrument, general consensus of opinion being Bud Isaacs, Buddy Emmons and

**BASIC 9TH CHROMATIC TUNING  
(PER JIMMY DAY)**

String	Open Tuning	Pedals			Knee lever
		1	2	3	
1	F#				
2	E <sup>b</sup>				
3	G#		A		
4	E	F#			E <sup>b</sup>
5	B	C#		C#	
6	G#		A		
7	F#				
8	E				E <sup>b</sup>
9	D				
10	B			C#	

NOTE: In many cases pedals 1 and 3 are transposed.

NOTE:  
LKR means left knee moving right  
LKL means left knee moving left  
RKR means right knee moving right  
RKL means right knee moving left  
RKU means right knee moving up  
LKU means left knee moving up

Jimmy Day.

Now to the tuning: The open tuning of the Pedal Steel Guitar is shown below, and should prove to be self-explanatory.

At the top of the chart is shown the pedal rig we shall use for the purpose of this exercise. You will see that:

Pedal No. 1 raises strings 4 and 5 to F# and C# respectively.

Pedal No. 2 raises strings 3 and 6 to A

Pedal No. 3 raises strings 5, 7, 10 to C#

and the knee lever LKL (Left knee-moving left) lowers strings 4 and 8 - both E's to E<sup>b</sup>.

Let's start with the most popular basic change of all. We'll call it the E to A change. Pick any combination of strings, 10, 8, 6, 4, 3, together, then press pedals 2 and 3. The same strings will now be tuned to a chord of A. Releasing the pedals will now allow the strings to return to the open tuning, which is of course the chord of E.

Now depress Pedal No. 2 and operate the knee lever and you have the chord of B7 on strings

10, 8, 7, 6, 5, 4, 3, or a combination of same.

So there you have it. The 3-chord trick - and you haven't even put the bar on the strings yet! It stands to reason that if this happens on E on the open tuning, moving the steel bar to the appropriate fret marker will give the same effect in different keys. For example, Fret 1: F, Fret 2: F# Fret 3: G and so on until you reach the 12th Fret, and then you start all over again.

On the modern Pedal Steels, the strings are raised and lowered by pedals and knee levers through a system of rods, collar springs, equalising plates, bell cranks, bits of bent wire - and in one particular case, parts of a 3-speed Sturmey-Archer push bike hub, nicked from one of the kid's bikes!

I won't go into the mechanisms of the systems in detail, as this would require a much longer article. In the next issue of International Musician I will go into bars and finger picking techniques, individual tuning and various other things you should know.

# Godwin Wem

## MODEL SC444P

### UPPER MANUAL

Drawbars - 16', 8', 5.1/3', 4', 2.2/3', 2', 1.3/5' & 1', with separate percussion tabs for the above.

Solo Tabs - Viola, Oboe, Clarinet, Violin.

### LOWER MANUAL

Drawbars - 16', 8', 5.1/3', 4', 2'.

### PEDAL BOARD

Drawbars - 32', 16' & 8'.

### GENERAL CONTROLS

Vibrato - On/Off - Fast/Slow

- Depth - Attack.

Hammond Reverb.

Sustain - On/Off - Short/Long

- on Upper Manual and Pedal Board.

Sustain - On/Off on Lower Manual.

Percussion Upper Manual -

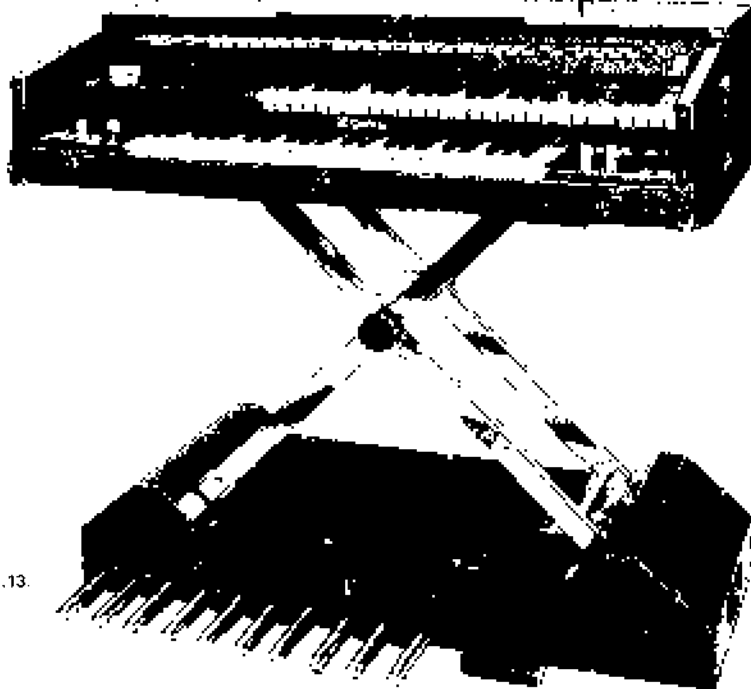
On/Off - Short - Medium -

Long.

Repeat - Repeat Rate.

Percussion Pedal Board - On/Off

- Attack on 8'. Short/Long.



**NOW IN STOCK AT THE FOLLOWING MAIN DEALERS:**

ROD ARGENT'S KEYBOARDS, 20, Denmark Street, London, W.C.2.  
E.D. BROWN (ORGANS) LTD., 141/143, Leeds Road, Nelson, Lancs.  
JOHN'S MUSICAL & HI-FI, 142, High Street, Scunthorpe, Lincs.  
LEWISHAM ORGAN CENTRE, 324/328, Lewisham High Street, Lewisham, S.E.13.  
MID-CORNWALL ORGANS, 41, East Hill, St. Austell, Cornwall.

See your local dealer about the famous range of Godwin Organs or write for brochure to:

**wem**

**WATKINS ELECTRIC MUSIC LTD  
66, OFFLEY RD., LONDON SW9 0LU  
Tel: 01-735 6568 Cables: MUSECTRIC LONDON**

# K R A Z Y K A T

By Eamonn Percival



Krazy Kat: (back) Ray Lewis, Tony Ferguson (front) Harry MacDonald, Grahame White, Roger Willis

Remember the good old harmony bands of the early Sixties? Tony Rivers and the Castaways, Harmony Grass, — the list was endless. It wasn't unusual to see a semi-pro outfit performing immaculate versions of Beach Boys standards with four, five, even six-part harmonies. During the Psychedelic and Heavy Metal booms, vocal harmony seemed to disappear overnight from the music scene, to be replaced by overlong and boring guitar solos.

Recently, harmonies have come back into vogue and more bands are experimenting with voices rather than instruments. Acoustic-orientated bands like Crosby, Stills and Nash and America brought voices to the fore, while on the HM side, Queen tried to convince people that the Cardiff Male Voice Choir could be bed partners with Led Zeppelin.

One of the best new bands around to fuse powerful rock with classy, polished harmonies is a five-piece called Krazy Kat. Signed to Mountain Records, the band have released two albums, "China Seas" and "Troubled Air" and recently completed a very successful European tour with Peter Gabriel.

Grahame White (guitar), Tony Ferguson (guitar) and Roger Willis (drums) were all members of a band who "Nearly Made It" called Capability Brown. When Cape split in 1974, the three teamed up with Harry MacDonald (keyboards) to form Krazy Kat.

They gighed anywhere and everywhere for a year until Mountain realised their potential and signed them just over a year ago. At that time, Tony was playing bass and switched to guitar when they found a bassist in Ray Lewis, bringing the band up to a five-strong unit.

The band have had two years of concentrated groundwork and, with two albums under their belt, have yet to make it to the big league. They thrive on hard work and, prior to a three week stint of English dates, spent every available day ensconced in a Greenwich rehearsal room going through new numbers and re-vamping older ones. I spoke to them during a break in rehearsals about the band's past, present and future.

"The idea in forming the band", explained Tony, "was to do original material without carrying on from where Cape left off. We wanted to still use the vocal harmonies and basically do lots of gigs and play to as many people as possible. In the first year, we played 240 gigs! That was all small clubs and pubs just to stay alive and buy gear. We looked after our own affairs apart from a friend of ours who got us all these gigs. We virtually managed ourselves. Financially, it was chronic. But luckily, this guy kept us in work and we kept our heads above water. Just prior to Mountain getting interested in the band, we spent 24 days in Holland doing small clubs and working really hard".

"We did a whole weekend of double

gigs and the next three days we had to virtually play instrumentals all night 'cos all our voices had gone" said Roger.

The early Rock and Roll idea of going to Hamburg to tighten the band up through sheer hard work still works, according to Krazy Kat.

"The difference in the band in playing, tightness and feel was amazing after we had done Holland. We came back and we had a lot of gigs lined up in and around London and Mountain saw us and that's when it started to happen. That tour of solid playing and living with each other really made a difference. We talked about hardly anything else but music whereas, in England, after a gig, you tend to mostly go home afterwards. It really tightened us up" Tony said.

Capability Brown were perhaps best known for their amazing six-part harmony arrangements and, as Krazy Kat are five vocalists as well as accomplished musicians, did they intend the band to become a "harmony showcase" group?

"Well, I don't think the public wants too much harmony", said Tony, "in fact, one of the phases we're going through at the moment is using it sparingly, so that when it is used, people notice. The problem is that we're still doing some of our old songs now and they have been worked out with so many different harmony variations — three-part, four-part, five-part and we keeping switching those around — that it's becoming evident that



people just don't know what's going on unless they're actually into singing harmony themselves. So, really, you're only entertaining yourself 'cos you know you can do it and it's nice to show off. We're actually trying to hold back on a lot of harmonies".

Working out vocal harmonies, especially five-part, is not the easiest thing in the world. There is much more than melody/third/fifth construction, especially in recording with the added temptation of multitracking.

"It's basically down to blends. You can work out different parts but at the same time you're not going to get the blend. You have to work out what voice suits what part and swap it around to see what works", said Ray.

"What we found with recording was that you get maybe a basic three part, a major chord, right? If say Roger takes the top, I take the bottom and Grahame takes the middle, we record that, then we'll swap over and track it so that Grahame will go up, I'll go up, and Roger will come down and then we'll track over again with all of us taking one another's part again so you'll end up with the three of us singing each part tracked over three times. The idea is that voices have different frequencies and it fills it out", Tony explained.

"I first became aware of doing it that way when Crosby Stills and Nash came out. That's what they did on their first album to get that really warm sound. Their method of miking was to get really close to the mike and sing quietly".

"It's changing the actual sound when you track like that as well as each taking a different note each time", Grahame added. "It sounds so much fuller. You're not really aware of this choir effect when you listen to the end result. It just sounds fuller".

Krazy Kat have had two albums out within a year and their set has changed more times than they care to remember. They're a very prolific band and face the inherent problem of choosing what numbers to play onstage. As well as their own self-penned showstoppers like "Shame", "Melody Maker" and "Troubled Air", they also include "Lady Madonna" and have recently re-introduced "Liar" into their set.

"We rehearse a lot", said Tony, "because we're always changing the set and introducing new numbers — possibly more than is good for us but the thing is different sets go down well with different audiences".

"We came back from Europe sure that we had the right set but we found the audiences completely different" said Ray. "Then you find you have to go back to rehearsals and work out another set for England. We were supporting Peter Gabriel over in Europe and we found a set that built up towards the end but, for England, it seems that you have to make a big impact immediately".

"You have to come in very hard and very solid". Added Grahame. "That leaves you in a

bit of a dilemma because you've then got to keep that up for the length of set. It's not a question of playing that fast or keeping the momentum up but you have to *pace* an act. If you start off hard, you've got to build to an even higher level".

"Another thing I found is that, if you're playing to a concert audience where they're seated, they are more prepared to listen". Said Roger.

"Another point is that here punk is really happening and everyone wants and expects something really powerful". Grahame added. "Over in Europe, it's only just starting to happen".

At this stage of the band's career, their next hurdle is to find the right song for a representative single.

"We've done the two albums, we're well-rehearsed, we feel we can hold our own almost anywhere, so we need to culminate all that effort into getting a hit single purely to get that wider audience for the band". Explained Tony. "We've got ideas for songs for a possible single but the thing is to get it right in the studio. You have to have the right atmosphere on a single and it's getting that onto the record that is the difficult thing. Sure, there are songs that would be great singles but unless you get it channelled right on the session, it won't be a good single".

# WHAT'S NEW IN THE SYNTHESIZER JUNGLE.



## the CAT

All Keyboard players have made the trek through the great synthesizer jungle. You have seen one oscillator and two oscillator synthesizers. Expensive and in-expensive ones.

Yet in this jungle of synthesizers enters a new beast, THE CAT. Now with the introduction of the new CAT synthesizer, you can have all the high priced features at a fraction of what you would presently spend.

If you're wondering what we could possibly offer you read on: 37 note keyboard, 2 oscillators, (waveforms on oscillator 1 — sawtooth, triangle, modulated pulse, sub-octave square, ALL SIMULTANEOUSLY MIXABLE. Waveforms on oscillator 2 - square, sawtooth, sub-octave square, ALL SIMULTANEOUSLY MIXABLE). An ADSR with repeat plus an AR generator. An automatic sample and

hold whose output can be patched to VCO 1, VCO 2, or the VCF. A -24dB/octave voltage-controlled low pass filter with adjustable Q that can be used as a sine wave oscillator. A VCA that can be modulated by the ADSR, AR or can be bypassed. An LFO with a rate of .2Hz to 20Hz. The CAT can also be easily connected in series with a simple stereo cable, plus much, much more.

We don't want you to take our word, we want YOU to convince yourself by going to your dealer and playing the CAT, then comparing it, feature for feature, with any synthesizer (that's right, we said ANY synthesizer).

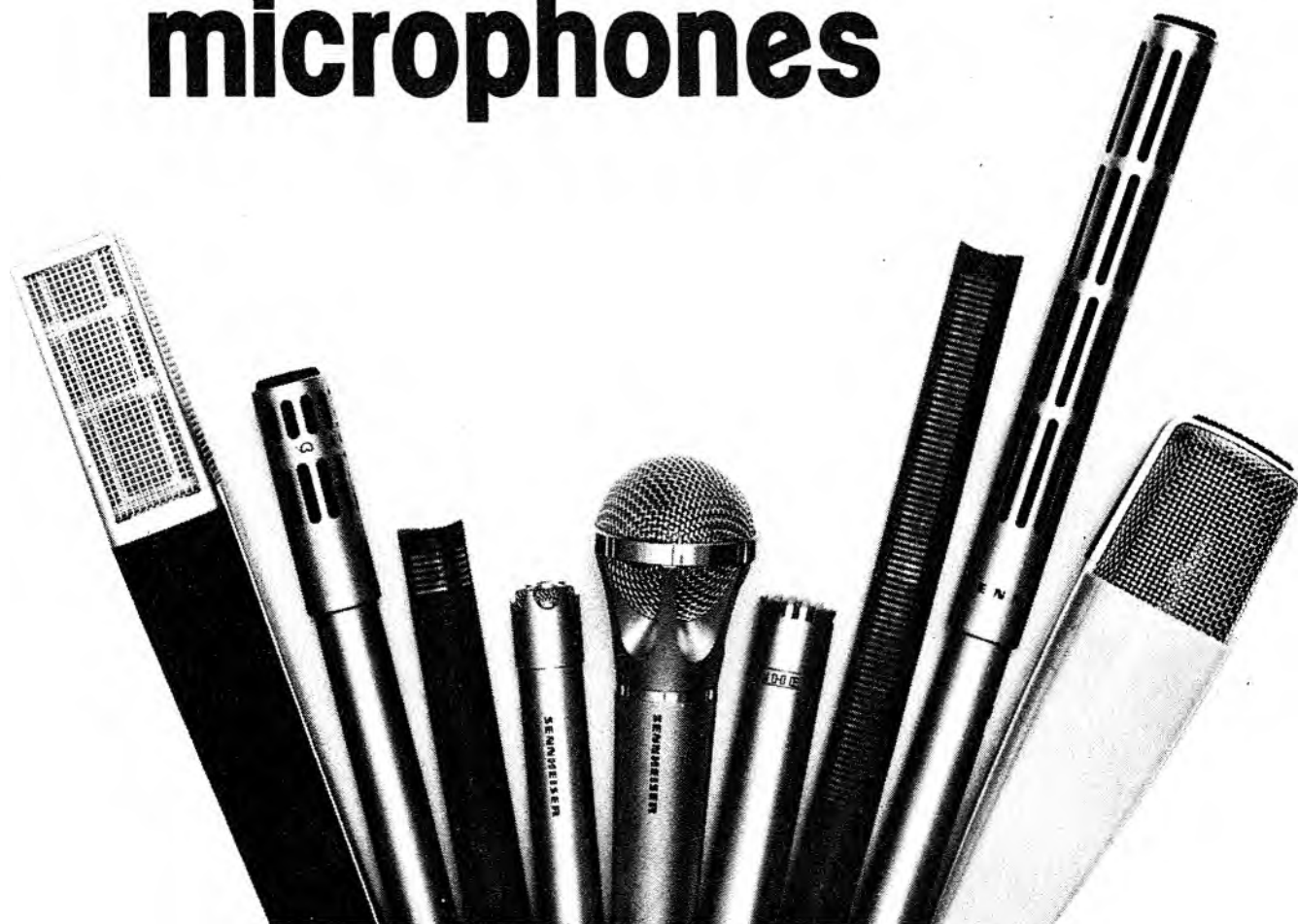
We feel you'll put your hard earned money on our CAT. So, next time you go to your local dealer tell him you want to see and hear the CAT, the high priced synthesizer with the low price. Available at dealers worldwide.

by **OCTAVE** *Electronics Inc.*

32-73 STEINWAY STREET  
LONG ISLAND CITY, N.Y. 11103, USA  
TEL: 212-278-7422  
PROFESSIONAL KEYBOARD PRODUCTS  
1 CLAREVILLE STREET,  
LONDON SW7, ENGLAND.  
TEL: 01-427 2703



# SENNHEISER microphones



## the professionals

For your free copy of the 100 page Sennheiser Catalogue complete the coupon and post to us right away.

### Hayden Laboratories Ltd

HAYDEN HOUSE, CHURCHFIELD ROAD,  
CHALFONT ST. PETER, BUCKS SL9 9EW.  
Telephone: Gerrards Cross (02813) 88447

**HAYDEN**

Please send me a free copy of the 100 page Sennheiser  
Microphone Catalogue

Name .....

Company .....

Address .....

Code IM 1/78

THE ELECTRONIC DRUM

SYNDRUM



CARMINE APPICE

## PERCUSSION WILL NEVER BE THE SAME

Syndrum is a totally new approach to percussion. Whether used singly or in sets of four or more, Syndrum allows you to totally exploit the possibilities electronics offers the drummer. And the variable controls of Syndrum allow you all the options of electronic per-

cussion without sacrificing technique. It is this concept of dynamics and control that distinguishes Syndrum as a musical instrument for the drummer. The professional acceptance of Syndrum is unprecedented as the following list indicates:

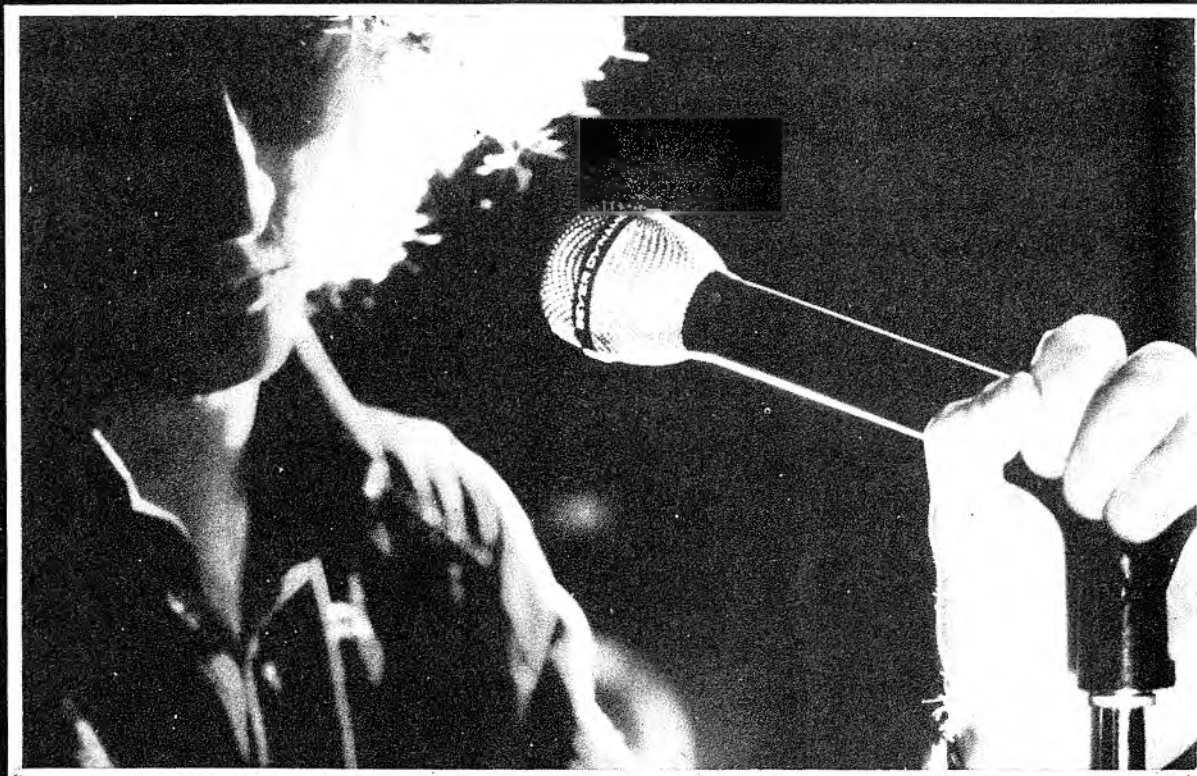
Carmine Appice (Rod Stewart)  
Hal Blaine (Studio & John Denver)  
Mike Botts (Bread)  
Bill Curtis (Fatback Band)  
Phillip Ehart (Kansas)  
John Guerin (Studio & LA Express)  
Evan Kaplan (Percussionist)  
Russ Kunkel (The Section)  
Jerry Marotta (Studio)  
Chet McCracken (Studio)

Dereck Pellicci (Little River Band)  
Jeff Porcaro (Studio & Boz Scaggs)  
Kelly Shanahan (Dan Fogelberg)  
Ed Tuduri (Studio)  
Dave Williamson (Clinician)  
Mike Baird (Studio)  
Josef Blocker (Malcolm Cecil)  
Terry Bozzio (Frank Zappa)  
Les DeMerle (Studio & Transfusion)  
Ty Grimes (Tim Weisberg)  
Gil Melle (Composer/Producer)

John Hartman (Doobie Brothers)  
Keith Knudsen (Doobie Brothers)  
Ed Mann (Frank Zappa)  
Rick Marotta (Linda Ronstadt)  
Ralph McDonald (Studio)  
Jim Monroe (Studio)  
Joe Pallard (Studio)  
Alejo Poveda (Minnie Riperton)  
Richard Perry (Studio 55)  
Pete Vronce (Gary Lewis)

And more!!! Current & soon to be released albums featuring Syndrum include those of: Carly Simon, Hall & Oates, Linda Ronstadt, John Denver, Doobie Brothers, Alphonso Johnson, Roger Miller, Boz Scaggs, Dan Fogelberg, Leo Sayer, Kansas, Joni Mitchell, James Taylor, Stevie Wonder, Steve Miller, Grateful Dead, Tom Scott & the LA Express, etc., etc., etc.

For a complete Syndrum Owner's Manual send \$1 to Pollard Industries, Inc., 9014 Lindblade Street, Culver City, California 90230.



The microphone is the most important link for most singers. They will gladly spend hundreds of pounds on amplification, but far too little consideration goes into the choice of their microphones. The mike is where the whole sound starts, get that right and everything else follows. Get that wrong and you can have a £10,000 P.A. system and your sound will still be bad.

Different microphones make you sound different. If you have never used Beyer Dynamic microphones before, you really don't know just how good your sound could be.

The microphone illustrated from our extensive range is the Beyer Dynamic M69 N(C). Beyer Dynamic is just about the oldest and most experienced mike company in the business, but the design and marketing team is young enough to know just what today's music needs. That is how Beyer Dynamic mikes can improve the chain — then it is up to you!

Ask your Beyer Dynamic dealer for a demonstration. Send now for our 1977 brochure, illustrating the full range of microphones, headphones, infra-red listening systems, etc.

## THE MOST IMPORTANT LINK



M69 N(C)

**BEYER DYNAMIC**

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

To Beyer Dynamic, 1 Clair Road, Haywards Heath, Sussex.

Please rush me details of the Beyer Dynamic microphones/DT220/DT440 headphones/infra-red listening system etc.

Name \_\_\_\_\_ Address \_\_\_\_\_

# ★ MICROPHONE SURVEY ★

**Beyer Dynamic** is an international company with more than 45 years experience in the design and manufacture of high quality audio equipment. There are 46 different microphones in the range which cater for almost all applications.

Two of Beyer's most successful microphones have been the ribbon mikes **M160N (£150.90)** and **M260N (£60.72)** which have been in continuous production for the past 18 years.

Both are used extensively for broadcasting and recording by musicians and entertainers. The company says that the M260N has become popular with groups because of a high feedback threshold and gives an extremely smooth response.

The **M160N** is used extensively by pianists for critical recording work. By using the double ribbon principle, the highest possible reproduction quality of music and speech is obtained.

In recent years, the **M500N (£79.97)** ribbon mike was added to the Beyer Dynamic range. This was designed to pick up the full intensity of rock music while suppressing popping, breath noise, and hissing. Beyer claims flat frequency response, high sensitivity, and excellent front to back ratio for the **M500N**.

Additions to Beyer's dynamic moving coil microphones include the **M201N (£68.66)**, **M550 Omni-directional (£18.10)**, and **M640N (£32.70)**. The **M201N** has, because of its hypercardioid characteristics, been designed for broadcasting and recording.

Succeeding the famous **M100** is the Beyer Dynamic **M101N (£71.68)** which is an extremely small omni-directional microphone for studio work. Weighing only 5.65 oz, it is impervious to body



*Beyer M500*



*Electro-voice 671 dual-z  
Dynamic cardioid*

noise and has an absolutely flat frequency response curve. Accepting speech modulated voltages up to 2V, it can also be used as a talk back microphone.

The **M69N (£53.31)** is an unusually sensitive mike with outstanding hypercardioid characteristics. It makes high-quality transcription possible even under acoustically unfavourable conditions. The well-balanced response curve of the microphone maintains the highest fidelity in the reproduction of speech and music. The SM version has a built in "voice music" switch.

Similarly, the **M88N (£113.99)** with hypercardioid characteristics, has unusually high sensitivity. Due to its very good front to back ratio it is less subject to feedback and provides excellent elimination against unwanted sound. It is used by broadcasting and TV studios, recording artists, bands and instrumentalists.

The **M64N (£32.08)** is a versatile, economical, unidirectional microphone for mounting on goosenecks or other flexible or fixed mounting. Its outstanding cardioid pattern makes it an excellent mike for conference and simultaneous translation work.

Beyer is introducing a new version of the M260 this month to be designated the M260 NS. This ribbon make is ideal for vocal and instrument work.

**Electro-Voice** have been making microphones for nearly 50 years and have products for use in every situation. They offer all three basic types of dynamic microphones most needed by musicians: omni-directional, Variable D and single D cardioids.

The **635A (£56.54)** is a popular

# ★ MICROPHONE ★ ★ SURVEY ★

model for hand or stand use, it is omni-directional with a response of 80–13,000 Hz, the single D Cardioid **DS35** (£78.57) is a mike for the professional who desires bass boost when used up close.

The Variable D Cardioid **RE15** (£165.47) is a super cardioid with a high degree of directional control, a bass tilt switch for flat or rolled off low end to control reverberation.

An omni-directional for semi-professional recording and PA is the **631A** (£46.13) which is hand held and particularly good for close up work.

A characteristic of most directional mikes is that there is a boost in low frequency response when used close to a sound source. Electro-Voice claim to have eliminated this phenomenon in the 660 dynamic super cardioid mike (£64.88). The 664 is the most popular PA mike being particularly durable and offering a high degree of resistance to mechanical shock and minimise proximity effect.

Known as the "singer's mike" the **671** (£58) is a popular bell-shaped mike that is good for hand held use. It features close in bass boost, built in super blast filter and has a satin chrome finish.

For location recording, the **1776** electret condenser cardioid mike has been introduced costing £85. This features a low mass electret element and FET impedance matching circuit.

West German firm **Sennheiser** makes more than 55 different types of microphone for a wide variety of uses. The majority of their products are designed for use in broadcasting and industry but a number can be used for performing and recording.

A suitable studio mike would be the **MD421** (£84.62) which is a popular

cardioid product which has a wide frequency response of 30–17,000 Hz and is said to be a favourite with engineers.

Rock vocals are catered for with the **MD413** (around £55) and **MD416** (£75.40) which make use of a particular frequency response to give a balanced sound pick-up when held close to the mouth. Both mikes have built in anti-popping filters to avoid "boominess". Either mike can be hand held or mounted on a floor stand by means of a quick release clamp.

One of the most successful studio mikes produced by Sennheiser is the M21 selling for about £50. It is omni-directional with a 5dB boost between the 2,000 and 15,000 Hz of the frequency response range.

Probably a more suitable studio mike is the **MD211** for around £86. The firm maintain that this is one of the finest moving coil mikes in the world with a frequency response of 30–20,000 Hz. The mike, which is omni-directional, has an extended low frequency, making it useful for recording organ pedal notes.

**Dynacord** have been an important name in the manufacture of sound reinforcement equipment for the last 20 years. The company specialise in amplification, PA systems, mixers and power amps.

Dynacord have a range of microphones suitable for both stage and studio work which include the **DD 400**, a professional directional mike which is robust, sensitive and especially good for outside use.

The **DD600** is a dynamic cardioid with a built in sound characteristic switch, anti-pop and wind shield with



*Electro-voice  
dynamic  
super-cardioid*



*Electro-voice  
DS35 professional  
dynamic cardioid*

high resistance to feedback. The **DD100** is similar with an on/off switch in the connecting plug and built in filters. For wider frequency response, Dynacord supplies the DD 800. This is a dynamic studio mike suitable for areas where there are difficult acoustics.

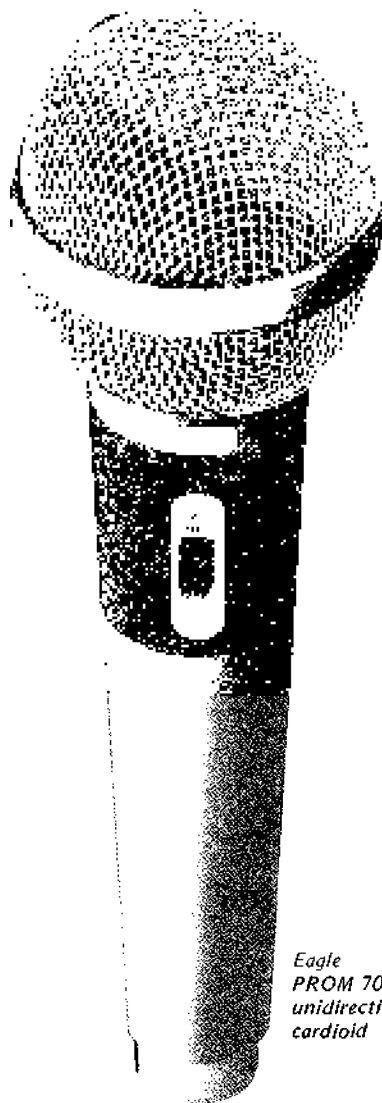
**Neumann** condenser microphones have been around for 50 years and are best known for their high quality studio equipment. The prices range from the **KMA** and **KMA S7** both at £126.11 to the **SRM841** costing £363.

Perhaps the best-known Neumann is the **KMS 851** (£235) comprising dual membrane capsule using evaporated gold on polyester film for extreme long life and heat resistance. The **KM861** (£274) is a three-in-one mike with directional characteristics of cardioid, figure 8, and omni electrically selected by a switch below the capsule head. The **KM86** reproduces low frequencies equally well for the three directions even at large distances from the sound source.

The **KMS 851** (£235) is of particular interest to rock musicians with its newly-developed cardioid fet-80 mike specially designed with rock music in mind. A multi-stage mechanical filter in front of the condenser capsule provides maximum protection against popping and other explosive sounds.

A microphone for vocal and instrumental soloists is the **KMS841** (£255) which was developed to meet all possible requirements. A balanced linear frequency response can be achieved with this mike, both for close talk as well as for the recording of somewhat more distant sound sources.

All Neumann condenser mikes have Phantom systems, which is a power



*Eagle  
PROM 70  
unidirectional  
cardioid*



*AKG  
D2000E*

supply system in which the current flows from the positive supply terminal through the electrical centre of the two modulation leads to the microphone. This method is said by Neumann, to accept dynamic, ribbon and tube condenser microphones without the need to turn off the power supply voltage.

**AKG**, are famous for their Condenser Microphone Modular System of microphones (CMS) which enables a basic pre-amp to be used with different capsules for different situations, thus giving the user several mikes in one.

They also manufacture about 15 dynamic mikes ranging in price from £6 (ex VAT) to £75. Of particular interest is the **D1200** (£45) which was developed in cooperation with musicians and singers, it has a frequency adjustment control which gives emphasis to bass, medium or sharp response.

Other AKG mikes are the **D2000** (£50), which has a hypercardioid pattern to minimise feedback, and the **D202** (£68), a dynamic two way mike which contains two coupled transducer systems in a single housing.

If you are on a tight budget, the **D190** is the top model in AKG's medium price range. This is a professional general - purpose mike for musicians, PA, use and quality tape recording and is generally considered a good robust band mike.

**Eagle** are aiming for the lower price end of the quality mike market with the likes of the **PROM 70** and **PROM 90** which are priced at £34.20 and £43.90 (plus VAT) respectively.

Both are designed for studio and live performance of voice and music. The **PRO 90** is a rugged dynamic cardioid

microphone which has a heavy diecast body with an XLR terminal. Frequency response is 40–16,000 Hz with an impedance of 600 ohms. Sensitivity is  $-72$  dBV/Pa with a front to back ratio better than 10 dB.

The **PRO 70** and **80** (capacitor and dynamic respectively) have the same body and windshield design as the **90** but with a brushed gold finish. Economy priced models include the **UD 50 HL** (£13.15) which is a dual impedance cardioid response mike with integral on/off switch, and the **DM 73** (£13.30) which is a heavy duty omni-directional mike with integrated on/off switch and detachable six metre cable.

**Shure** is probably the best-known name among suppliers of microphones. Few people in the entertainment world will not have used their products at some time or another.

The company produces dozens of microphones for both PA and recording application, and the range is immense. Shure offers quality products at accessible prices, the most popular mikes for PA use being the Unidyne and Unisphere range.

The **545 Unidyne III** is a unidirectional cardioid mike which sells for about £55, and the **548 Unidyne IV** is very similar but has an on/off switch and an extended bass response making it suitable for bass instruments as well as vocals, it sells for around £67.

The **Unisphere** series gives superb feedback control and uniform cardioid pickup pattern features in addition to giving the user effective control of explosive "breath" sounds and excellent reproduction of voice and music. The average price of the **565**, **565D**, **565S** and the **565 SD** in this range is £65.



Shure unidyne 545



Shure SM54 unidirectional dynamic mike

The **566 Unisphere** features a special built-in vibration isolation shock mount and sells for £95.40. In the higher price range, the **SM54** mike (£159) is a dynamic cardioid product designed for professional use where sound quality control is at a premium. For hand or stand use in broadcasting, the **SM62** (£73.80) is a good choice.

In the studio, Shure recommend the **SM11** (£46.80) and the **SM7** (£225.60). For the recording rhythm instruments in the studio the **SM57** (£72.60) with which is super cardioid and can be held in the hand or used on a stand is probably the best choice.

**Calrec Audio** are one of the few British firms who are producing mikes at competitive prices. They concentrate mainly on the television and studio market, although there is a range of dynamic mikes which are suitable for vocal and instrumental use.

Of these, the **CM654** (£37.07) is an acoustically compensated vocal cardioid mike designed to give vocal quality together with good anti-feedback properties. The **CM656D** (£44) is similar to the 654 but has a chromium-plated spherical mesh head which contains the windshield.

For small recording studios or quality home recording, the **CM652D** (£35.20) is recommended, while in situations where feedback and/or separation are not important the **CM602D** omni-directional mike is probably the most suitable, also priced at £35.20. Calrec's professional studio range incorporates the **1000, 2000** and **2100 Series** which range in price from £65.12 to £83.84.



# CALREC

## The Great British Microphone

Studio quality, condenser mics. for stage & p.a. use

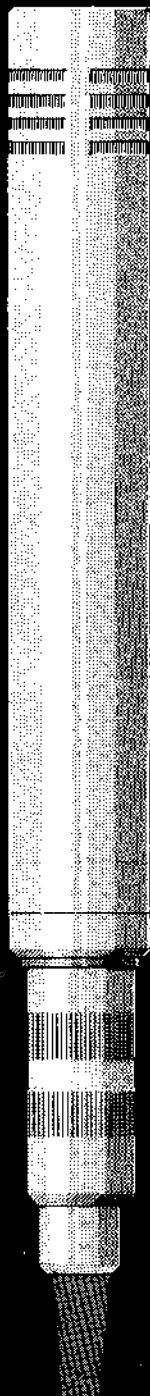
Chosen by professional musicians and broadcasters in 16 countries

Designed to stand the rigours of the road

There's a model to suit your needs -

For details of our range and technical spec. see your dealer or contact us...

Calrec Audio Ltd  
Hangingroyd Lane,  
Hebden Bridge,  
West Yorkshire, HX7 7DD  
Telephone (0422 84) 2159



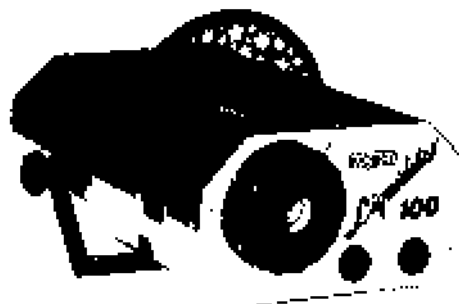
# PROJECT

EFFECTS PROJECTORS

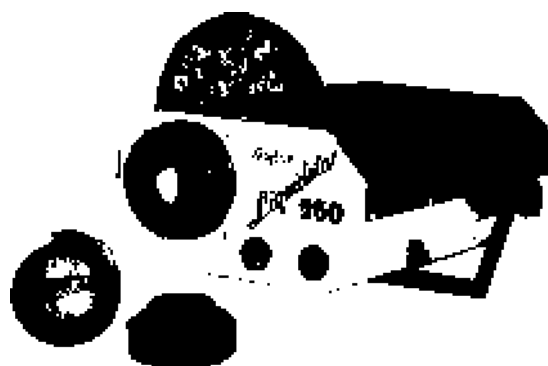
**BABY 100**  
complete with effects wheel...£34.00  
all prices include VAT



**CASSETTE 100**  
complete with cassette...£39.00



**LIQUIDATOR 100...£75.00**



**LIQUIDATOR 250...£99.99**

The new series LIQUIDATORS are surely the most versatile and advanced effects projectors ever. Not only do they have the built-in twin drive mechanism for wheels and cassettes made famous by the previous models, but the new Liquidators will project both wheels and cassettes simultaneously! In addition they are equipped with slot-in facility for many other exciting effects such as Total Eclipse and Lquisplode units, and will even accept other effects cassette systems, any of which can be plugged in to one of the power out sockets on the front panel and still leave the second power out socket available for a front mounting effect. In a word - Sensational!

Ask your local dealer about all the  
DAVE SIMMS MUSIC PRODUCTS,  
or send 15p for catalogue.

Project Electronics Ltd  
1 - 5, The Grove, Ealing, London W5 5DX Tel. 01.567.0757  
TRADE & export enquiries welcome



# Recording

## STUDIO TRICKERY

by Robin Lumley

Last month, I discussed in this column, the ways in which some special effects devices work, and what they do. This time, in Part 2, I'm going to continue by discussing a few more "black boxes", and why a well-equipped remix room gives a great scope to a producer's imagination.

The reasons for studio trickery (outside the obvious "sound effects" point of view) are many. For a start, effects usage may make a recorded track "sound" better, in an indefinable way, so that it may not even be consciously noticed by the uninitiated record buyer. This doesn't matter as long as the tracks sound more interesting, if even subliminally.

Producers are careful not to forget that, on record, a group or artist has to project completely via the ears of the listener and not through any other sensory channels that are used by an audience at a gig. For there, the atmosphere, the visual side of the performance, and the sheer level of musical volume all contribute to the excitement experienced. Thus, on record, all these missing factors have to be compensated for, and a subtle usage of effects can aid this necessity greatly.

By way of explanation, a Graphic Equalizer consists of a dozen or so sliders, each corresponding to a narrow frequency band, and arranged from left to right in increasing Herz values.

Each slider can be moved from zero to a plus or minus side of a scale, graduated in decibels. Thus, as you can see, if a signal from tape of a guitar, or snare drum, or voice, for example is sent via a Graphic Equalizer, almost infinite control is obtained over the sound coming out at the other end, because every narrow band of frequencies within the sound are separately changeable in such a way as they can either be lifted, suppressed or just left alone. A very useful control room tool and one which, even when used, is not noticeable to the end-product listener.

If one was to make an inventory of all the devices mentioned above, and also in last month's piece; (let alone the few more to come below) there are very few studios that can boast ownership of the entire list.

Personally, I like to have as many as possible to hand; not necessarily to use them all, but to

have the choice available. For mixing especially, this is one of the many reasons that I work almost exclusively at Trident studios in London, because they are always keen to experiment with, and to purchase, every worthwhile innovatory electronic audio device to arrive on the market.

So let's take a hypothetical mixing session and see how effects are applied, channel by channel, to arrive on the finished mix-down tape. We'll imagine that a group has finished its recording onto a 24-track multitrack tape and the song is about to be mixed, or reduced, (from 24 tracks to 2-track stereo) preparatory to being cut into a disc.

With a 24 track, it is normal to use a 30 or 40-channel mixing board, as more channels than there are tracks on tape are required, as you will soon see. Let's also imagine that the musical performance has included drums, bass, guitar, keyboards, and some vocals and percussion. Each one of these items, having been recorded separately on its own track on tape is now brought up its own channel on the desk, and labelled perhaps thus:-

Channel 1	Bass Drum	Channel 13	Lead Guitar (D.I.)
Channel 2	Snare Drum	Channel 14	Bass (Amp)
Channel 3	Hi-Hat	Channel 15	Bass (D.I.)
Channel 4	Hi Tom Tom	Channel 16	Electric Piano
Channel 5	Mid Tom Tom	Channel 17	Synthesiser
Channel 6	Small Floor Tom Tom	Channel 18	Lead Vocal
Channel 7	Large Floor Tom Tom	Channel 19	Lead Vocal
Channel 8	Top Kit (cymbals etc.	Channel 20	Backing Vocal
Channel 9	recorded in STEREO)	Channel 21	Backing Vocal
Channel 10	Stereo Drum Ambience	Channel 22	Backwards Echo
Channel 11		Channel 23	Guide Vocal
Channel 12	Lead Guitar (Amp)	Channel 24	Tambourine

This accounts for all the recorded sounds, but we'll be using more channels for so-far unrecorded effects that will be used. For a start, we'll almost certainly need echo, so that's two more channels used as a stereo echo plate return (channels 25 and 26). Via foldback sends on each channel, the signals already coming up on channels 1-24 can be routed via the echo plate, and their echoes will appear on channels 25 and 26. So let's start adding some interesting mixing effects to our recorded piece of music. Firstly, a 15 ips repeat on the hi-hat. (I must add here, that all these effects and where I am using them are hypothetical, and do not relate to any piece of specific music or group - it's all

purely for example.)

For the repeat, the signal from channel 3 is routed via a tape machine running at 15 ips, and is recorded and played back simultaneously. The head gap on the machine causes a fractional delay, and it is this delayed signal that we now route up channel 27, giving us independent control over the volume and mix of the effect, compared with the original on channel 3. While we're working on the drums, we might find that the actual sound of the snare drum and bass drum leave room for improvement. So, without using up any more channels, we insert a graphic equalizer into channels 1 and 2 to give us further control over their sounds (as described above). Finally, any echo that we want on the drums can be routed via the echo plates.

Now, as you can see, channels 12 and 13 are lead guitar; these are not two separate performances, but one performance, recorded in two different ways simultaneously. Channel 12 is the guitar recorded via its amplifier, and 13 the same guitar recorded directly onto tape by Direct Injection Box.

The effect that we're going to add to the guitar is a gentle phasing on its chord passages only. So we route the signal from 13 (which is the DI signal) via an electronic phaser and bring the phased signal up channel 28 which is now the Phased Guitar return channel. Independent control of the phasing on channel 28 allows us to bring it in and out only on chordal passages.

We're going to do a similar thing with bass guitar, which has been recorded in a similar manner to the lead guitar (i.e. one side amp, one side DI), except that we'll route the DI side of the bass

through a Flanger (an effect that can sound very close to tape phasing). The flanged bass return is brought up channel 29.

Now with the electric piano (on channel 16) we're going to use a previously unmentioned device: on Eventide harmoniser. This is a relatively new studio effect that has great versatility. Suppose, for example, that a guitar solo has been played, but it is thought that a harmony guitar part would sound amazing. Normally, working out and playing a harmony track to what was originally a totally improvised piece of playing would be well-nigh impossible, but by feeding the original signal through the harmoniser, and setting it up correctly: the harmonizer turns

the original solo into a harmony version a third or a fifth (or indeed, any interval) apart from the original.

Great stuff, indeed, but for the electric piano effect, we're going to use the harmoniser as a kind of automatic varispeed device. Setting the harmony interval a fraction away from true pitch, and routing the piano channel 16 through the device we'll have (up channel 30) a slightly de-tuned version of channel 16. Listening to them together, that beautiful, chimy effect can be created, just like varispeed.

Channel 17 is the synthesiser, that we'll assume has been used for overdubs on certain passages. To make it fatter-sounding, we may decide to route it through an A.D.T. machine. A.D.T. stands for automatic double-tracking, and what an A.D.T. machine does is to copy the original signal and feed it back at a variable time gap later than the original. To make it sound like two instruments, this gap is a controllable number of milliseconds; anything from a 10-50 millisecond delay can sound good.

So up channel 31 we bring the A.D.T. synthesized signal, to fade in or out as required, and, as with all the other effects on separate channels, having separate control over their E.Q. echo, and volume, so as to have full power over their blending with the rest of the mix.

Channels 18 - 21 are vocal tracks, and these may have effects on them, as necessary. Channel 22 is a backwards echo track, and as another example of studio trickery, requires a little explanation. We'll assume that the backwards echo is that of the synthesiser line on track 17. How it is done, and in fact what it is, is as follows:- Track 17 is routed via an echo plate, and a nice long echo is established on the echo plate. Now, the multi-track tape is turned *upside down* on a 24 track recorder, so that as far as the machine is concerned, track 1 is now track 24, track 2 is now track 23, and so on. Thus, knowing that the free track we're going to use is track 22, where the tape arranged normally, we count forwards from 1 to find what was track 22, and find that it is now track 3. On this, by playing the tape through, we record the echo returns from the backwards-playing synthesiser part, so that when the tape is reinverted on the machine, there is a recording on track 22 of the echo, but coming *before* the notes played. This is a very beautiful and dreamy effect. Track 23, the guide vocal, won't be used in the mix as it was a rough vocal put down with the backing track, containing a count-in and perhaps spoken cues that have been a great help whilst overubbing.

So there is the complete set-up, tracks and effects. All that remains is that they be mixed, which is another story altogether! We'll talk about that one soon.

# Celestion Horns give your systems ahead start

Celestion Horns are top quality, precision manufactured loudspeakers. They offer reliable backing for heavy duty systems, especially those using Celestion cone speakers, and give maximum performance for prolonged periods without deterioration.

## **MH1000**

A 25 watts horn with a great reputation reflected in its use in a variety of equipment around the world.

## **Hi Cel.**

Is a variation on the MH1000 theme, using two of those units on a specially designed casting, giving a 50 watts system handling capacity.

## **MH500**

This cast horn is available with single or twin throats, accepting Celestion DC25, DC50 and DC100 drive units. Using the twin throat with two DC100 units, a power handling capacity of 200 watts is available.

Principal distributors to the trade:

A. C. Farnell Ltd., Sheffield, England. Norman Rose (Electrical) Ltd., London, Birmingham, Manchester, England. Lugton & Co. Ltd., London, England.

# Celestion



Rola Celestion Limited,  
Ditton Works, Foxhall Road, Ipswich,  
Suffolk IP3 8JP, England.  
Tel: Ipswich (0473) 73131.  
Cables: Voicecoil Ipswich. Telex: 98365.





# THIS IS WHERE TOMORROW'S GREAT MUSIC IS COMING FROM.

We think musical styles change because musical talents change.

There is hardly a musician making money today who doesn't know as much about recording music as he does about playing it. And recordists know as much about playing music as they do about recording it.

Because both know the equipment that captures music can also be used to improve it.

So while musical styles may change, the interdependence of musician, recordist, and the instruments they use will not. And that is the reason for the TASCAM Series by TEAC.

For not very much money TASCAM lets both musician and recordist get their hands on mixers and recorder/reproducers that let both tailor their music their way.

For every kind of music, for every kind of need, at home and on the road, by price and application, everything we make

has the same goal as everything you make—be the best.

Because it still takes great talent to make great music.

## TASCAM SERIES BY TEAC®

A new generation of recording instruments for a new generation of recording artists.

**TELEDYNE ACOUSTIC RESEARCH**  
HIGH STREET, HOUGHTON REGIS, DUNSTABLE, BEDS. LU5 5QJ



The Model 5-EX shown with four optional 201 input modules. Model 5 shown with optional 204 talk back/slate module.



# THE PIRATES' RIGHT-HAND MAN

Who needs two guitarists when Mick Green is around? Not the Pirates who are currently shaking audiences all over with the real 'Rivvum and Blooze'. Eamonn Percival buttonholed Mick in a sweaty Hope and Anchor dressing room and scored an IM interview with the Man. Now read on.....

In these days of New Wave bands holding the torch for energy, aggression and stage presence, it's heartening to see The Pirates holding their own against the new genre of rock bands. The latest word in the music biz is "Don't use the Pirates as a support act". Why? Because they're a gut-level, high energy, no-nonsense rock band capable of blowing many bill toppers off stage.

The history of the Pirates goes back to the "innocent" days of rock and roll in the early sixties. Johnny Kidd and The Pirates were arguably Britain's only truly original rock and roll act and they scored with hits like the classic "Shakin' All Over", "Please Don't Touch", "Hungry For Love" and "I'll Never Get Over You". Kidd was tragically killed in a car crash in 1966 and the Pirates went their separate ways.

Although the original Pirates who recorded "Shakin' All Over" bore no resemblance to today's lineup, Mick Green (guitar) Johnny Spence (bass/vocals) and Frank Farley (drums) are the musicians most associated with the "Pirates sound". Particularly, the cutting, choppy rhythm/lead style of Mick Green.

Farley has since had a variety of jobs from lorry driver to bouncer in a Hamburg club. Spence played in various bands and eventually went into the second-hand car business while Green played with Cliff Bennet's Rebel Rousers, enjoyed a stint with Engelbert Humperdinck in the States and gigged with a band called Shanghai for a couple of years. In addition to this, he also worked as A&R man and producer for Thunderbird records. I spoke to Mick Green 1½ years ago (International Musician March 1976) but a lot has happened since then. Mick re-formed The Pirates in December last year and their half-live/half-studio album "Out of Their Skulls" has recently entered the Top 50. I spoke to Mick

in the dressing room of Islington's Hope and Anchor, before an exciting, but typical, Pirates gig.

"The Shanghai thing crumbled really. It just got silly. We weren't getting any work and we weren't going down all that well. Audiences weren't turning up. It was a nowhere one. Although the people in the band were good and I was happy with it, the audiences weren't. Three years of that and you suddenly start to think maybe they're right. You can only go on for so long.

"Frank phoned me up and asked if I fancied a blow for old times' sake so we played for about three hours and thought it would be good to go out and do some rock and roll clubs. We thought it would just be a Teddy Boy band but we were wrong. The first place we played was Dingwalls. And it was a typical Dingwalls' audience - pretty hip and posey and it went down really well. The next place we did was the Roundhouse with Eddie and the Hot Rods and we went down a storm there. We were just taken back by it all. It just went from strength to strength".

On the third Pirates gig, Larry Yaskiel of A&M and Warner Brothers fame, saw the band and offered his services as manager. Mick has been all through the business side of the industry during his days with Shanghai when he was doubling as A&R man for Thunderbird and knows a good manager is worth his weight in gold. He says Larry is "one in a million".

"We're very fortunate in having Larry behind the band. You can count the good managers in this world on one hand. He's 100 per cent dedicated to the band, he doesn't touch anyone else. He lives, breathes and eats The Pirates. I mean, when we're on stage, you can feel him up there with us."

Mick said the band had no problem "getting it together again".

"It was easy. I've got to be honest.

I'm not gonna say it was hard. It was no problem. In fact, before the Hot Rods gig, we'd only had two rehearsals and that includes the first blow. It just came naturally. When things go right, they normally build, you know? You know when you're doing it and you're doing it right. I mean with the band now, we always get people who come along to every gig and who have seen us five, six, seven times or more. There were two couples who came all the way to Holland to see us and followed us around. We never got that with Shanghai or anyone. People come to see the band now and come backstage and tell us they think we should do this number or leave this one out and things like that, you know? It's great. You get real contact with the audiences which is what the band needs, you can't just go onstage and nod your heads and all get into it together and have no contact with the people at all. The Pirates are a spontaneous band. We get off on people getting into it. If people get into it, we'll play all fuckin' night. That's what sort of band it is."

Just why The Pirates are so popular in 1977 is difficult to answer. Green, Spence and Farley are not kids. Their music is simple and straightforward. Their repertoire is half old R&B and half new material written in an early Sixties vein. Why then do more well-known bands have a hard job following the Pirates? Why is it that House Full notices go up everywhere they play?

"It's probably a bit hereditary," Mick explains, "you can trace the antecedence back. It's a lot of things. A bit of curiosity. The fact that Wilko was talking about The Pirates when the Feelgoods first came out. It's also the fact that it's a good band. And people want hard, fast Rock and Roll which is what we play. A lot of bands are playing it but, although they might have the intentions there, it doesn't come across that they're doing

it. I don't mean that in a big-headed way.

"I think the commitment comes across from us as well. When we go on, we enjoy ourselves. We've known each other for 22 years now. I mean, if you walked in to the dressing room after a gig one night you might hear us arguing about really stupid things and we really tear each other apart. If that happened with a new band they'd just end up killing each other or they'd break up. Because we've known each other that long, we know how far we can push each other. I think that closeness comes across".

When Wilko Johnson was playing with Dr. Feelgood, he admitted to being influenced to an enormous degree by Mick Green. He had taken that cutting guitar style and applied his own technique to it, thereby creating a lot of interest in Mick of whom, at that time, little had been heard. How did Mick feel

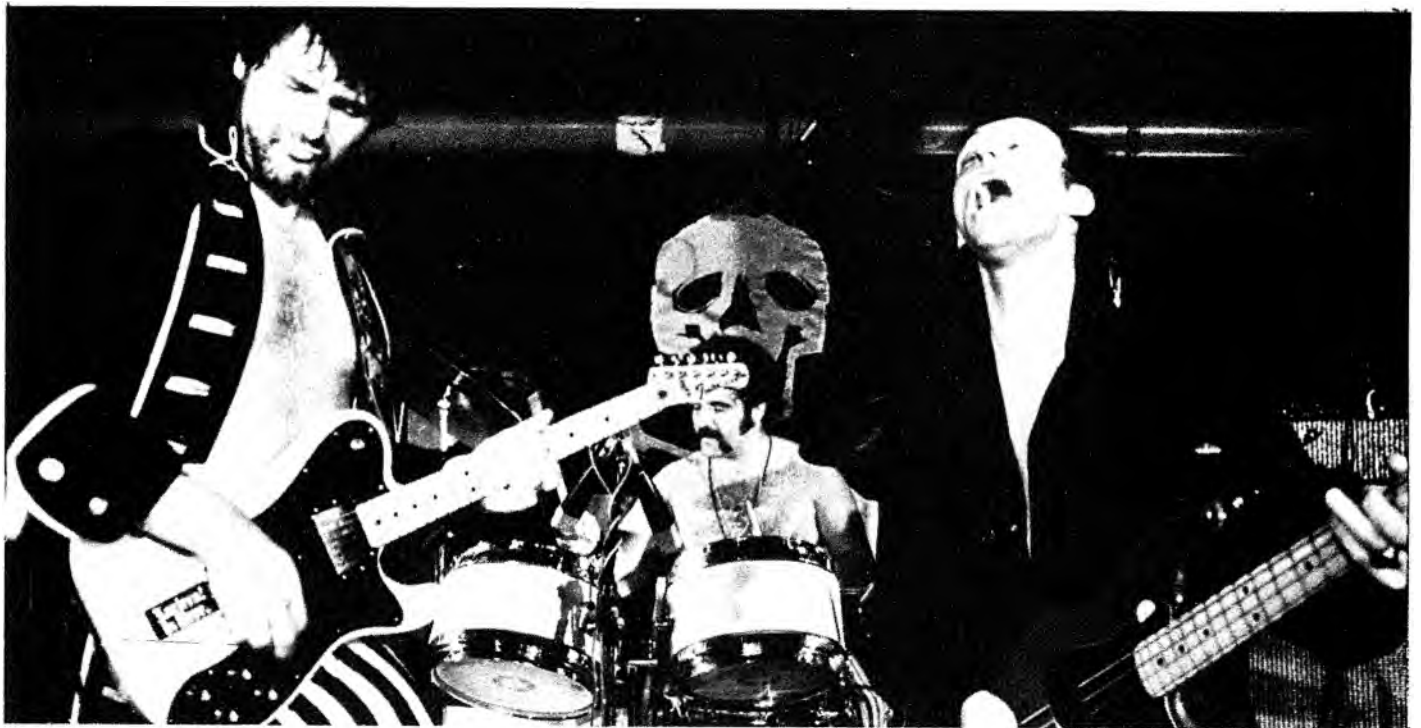
it" and "Gibson, Martin and Fender" How does Mick approach songwriting nowadays?

"Well, what we *don't* do is go over the top with overdubs and stuff in the studio — we like to keep that straight-forward feel like the older numbers and so I write songs that we can also do on stage. We spend a lot of time trying songs out before we decide to do them. We spend a lot of time in rehearsal halls rather than the studio. That's a good tip for new bands actually. A lot of them think "Oh, the record company is paying for studio time". The record company don't pay for anything, mate — you're paying for it! Bands go and spend three weeks rehearsing in the studio — well, you can do that in a rehearsal room for £10 a day as opposed to £40 an hour. When I write a song, I normally just write a song that you can sit down and strum on an acoustic. I don't write an arrange-

times and maybe put a bit of guitar over that and the next thing we knew, the record was out! We never ever went near it or mixed it or anything. Nowadays, rightly or wrongly, a band has more freedom and more say. But you have got to know how to use it. You musn't overdo it".

Whatever the Pirates record, Mick approaches it with a view to being able to play the number convincingly live. Overdubs are few and far between at a Pirates session. Decoration must be kept to a minimum if a guitar/bass/drums lineup are to put the song over onstage.

"With the studio side of the album, we could still be in there tracking if we wanted to but there has to be a point where we say we won't go over the top 'cos it's just gonna sound daft. I've never seen them live, but I always imagine Queen having a difficult time onstage



when he first saw or heard Wilko?

"I couldn't make it out, to be honest with you. I saw them at the Marquee before they cut their first album. Rob Dickens from Warners' publishing kept telling me about this bloke Wilko Johnson who was always talking about me. I went down there and I couldn't handle it! I mean when I first saw The Who or The Beatles or Cream or Hendrix, I could see "it" immediately but when someone's doing exactly the same as you were and they're tearing the fuckin' place apart, it's a bit hard to understand! But, with Wilko, I think it's about 40 per cent his playing and 60 per cent his showmanship 'cos he's got to be the Number One showman".

Apart from old favourites like "Shakin' All Over", "I Can Tell" and "Talkin' About You", popular live Pirates numbers include the self-penned "You Don't Own Me", "Don't Munchen

ment now. I used to write arrangements with Shanghai but it's different with this band. We arrange the song to suit the band now."

To date, the re-formed Pirates have had just one album out, although they should be recording again in the near future. Twelve years has seen a lot of changes in studios. How different is it recording with the Pirates now as opposed to recording in 1964?

"Well, when we went in the studios then, there was a barrier. We felt safe in the studio where the musicians are but, if we ever had to walk into the control room to talk to Wally Ridley or someone, we were suddenly in a different world of knobs and levers. It was very strange in those days and we never had the balls to say "I think the snare drum should come up a bit" or "more top on the guitar". We just used to go in and play the backing track a few

getting near to what they've put down on record and I'd hate to get into that situation. It's crazy to spend six months or a year making an album and onstage you've just got one chance to get it right. If you get it wrong, fuckin' unlucky!"

The success of the reformed Pirates was not planned intentionally. But, within a year, they are now selling out clubs and getting as many gigs as they want. What of the future?

"The way The Pirates works best for us is by us not even thinking about it. The best way to see forwards is to have a quick look back. This time last year, we were just about getting ready to have our first blow. Now, we've got an album in the Top 50, we're with one of the biggest recording companies in the world and we're getting good gigs. It's grown so much without us even thinking about it".

# the "x" rated word

most advertisements don't stress it, few salesmen want to promise it, spec sheets don't show it, and sound and appearance alone give very little indication of it. It's practically an unmentionable word. We're talking about RELIABILITY, and at Peavey, we like to talk about it because it's our main bag.

Our research and development is based almost entirely on consumer feedback. Our design and engineering is planned around the reliability factor of the unit we are building. We could almost double the power of some of our units using the same circuits. We could boast about a much more impressive power rating had we done this. But, we would have a much less durable amplifier . . . and when your amp's not working your power rating is zero.

. . . Think about it!



# WHAT EVERY AMP WOULD LIKE TO BE!



There's a PEAVEY powerhouse Main Dealer near you and he's a switched on guy who'll tell you all about the World's fastest selling sound equipment. We'll send you his name and address and a copy of the Peavey Papers if you send us a large stamped addressed envelope

Write to: Peavey Electronics (UK) Ltd., 49 The Broadway, Haywards Heath, Sussex RH16 3AS





# the professional keyboard centres

a division of City Electronics Limited

25 Central Sq. High Rd. Wembley 01-902 2832  
65 Market St. Torquay, S. Devon 25488



## imperial SUPER

- \* 44 note manuals
- \* Nine pitches of Harmonic Drawbars
- \* 8 Pre-set voices
- \* Superb Piano and Harpsichord voices
- \* 2nd and 3rd Harmonic Percussion and 'Chiff'
- \* Sustain & Delay Vibrato
- \* Multi-String Orchestral Ensemble with Sustain
- \* Orchestral Brass
- \* Built-in 2 speed electronic 'doppler' tremolo/chorus and much much more . . .

THE BEST VALUE PORTABLE ORGAN ON THE MARKET TODAY **£1,275**

Our amazing FREE offer!

PLUS



Buy a new Imperial Super from us during January and we will give you a superb Sharma 650 Cabinet and professional organ Stool (total value £357) absolutely FREE! **Sharma 650**

CUT THIS OUT & POST NOW

To: City Electronics – Professional Keyboard Centre  
PLEASE SEND ME INFORMATION AND PRICES ON:

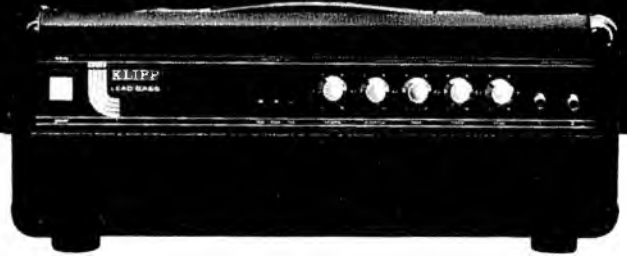
- Your Imperial Super offer
- Portable Organs  Synthesizers
- Keyboard Amplification  Effects
- Electric Pianos  String Synths
- Easy Payment Terms  Export

Name . . . . . Tel . . . . .

Address . . . . .

IM 1-8

# Laney A500 Amp Top



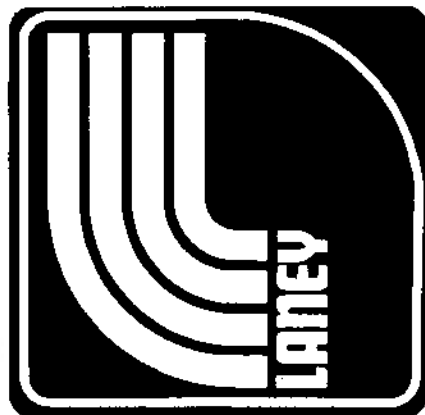
## Does Your Amplifier?

- Suit Bass Lead or Organ
  - Deliver 160 watt RMS (4 ohm)
  - Deliver 120 watt RMS (8 ohm)
  - Deliver 80 watt RMS (15 ohm)
  - Have full range tone controls
  - Have short circuit protection
  - Have open circuit protection
  - Have four speaker input sockets
  - Have headphone practice socket
  - Have slave output socket
  - Have Bass cut filter
  - Have Bass boost filter
  - Have top boost filter
  - Have KLIPP control \*
- (that's a little unfair since everyone knows KLIPP was designed and registered by LANEY and enjoys exclusivity)  
Automatically match up with almost any speaker system.  
Built in low frequency roll off protection.

Whatever your answers are we can assure you the Laney A500\* (A510R Reverb model) answers YES to them all.

See the complete new range of amps and combo's at your local dealer (they should be reaching your stockist about now)

\*£132.59 (including VAT)



LANEY AMPLIFICATION

Distributed by:-

Electronic Manufacturing (Sales) Ltd.,

CONTACT YOUR LOCAL DEALER

ONLY ONE CAN BE THE BEST



Les McCann, Roy Ayers Ubiquity, Al Kooper, Earth Wind & Fire, Bill Anderson, Kansas, Santana, Manfred Mann's Earth Band, Ronnie Milsap, Yusef Lateef, Electric Light Orchestra, Herbie Hancock, War, The Jean-Luc Ponty Band, Two Generations of Brubeck, Wayne Henderson, Pete Townshend, Boston, Floyd Cramer, Stevie Wonder and the bands of Dolly Parton, Deniece Williams, Charlie Pride, Johnny Cash and Donovan. **THANKS TO THESE ARTISTS, AND THOUSANDS MORE, THE ARP OMNI IS THE BEST SELLING SYNTHESIZER IN MUSIC.**

In country, rock, jazz, funk, pop, soul, and salsa, the rich sound of the polyphonic ARP Omni is making music even better.

The creative possibilities on the Omni are virtually unlimited. Lush strings, fat brass, piano, harpsichord and vibes, separately or in combination, as well as dozens of sizzling electronic sounds and effects. And the Omni has some very practical features, too. Like stereo outputs, professional high-level connectors for studio use, and a control panel "human engineered" in the ARP tradition.

Get your hands on an ARP Omni at your nearest ARP dealer. Or send for a five-minute demonstration record and complete information on the ARP synthesizer line. Mail \$1.00 to: Omni, ARP Instruments, 45 Hartwell Avenue, Lexington, MA 02173.



**THE NUMBER ONE SOUND  
AROUND THE WORLD.**

**IF ALL YOU WANT  
IS A RELIABLE,  
ROBUST VOLUME PEDAL  
AT A SENSIBLE PRICE!**

**TGV**

**The Top Gear  
Volume Pedal  
at £14.64  
is the one**



ALSO GREAT VALUE  
ARE THE  
TOP GEAR WAH AT £20.42  
AND THE  
TOP GEAR WAH/VOL AT £21.76

FOR FURTHER DETAILS OF THE FULL TOP GEAR RANGE OF  
ELECTRONIC EFFECTS SEND LARGE S.A.E. TO STRINGS & THINGS LTD.  
20 CHARTWELL ROAD, CHURCHILL INDUST. EST., LANCING,  
WEST SUSSEX BN15 8TU.

# THE LONDON SYNTHESISER CENTRE REPORT



## Chase Musicians Expand Synthesiser Operation

Since Chase Musicians opened The London Synthesiser Centre in Chalton Street last June, the synthesiser world has been given a huge uplift because at last there is a shop which specialises in synthesisers and gives the keyboard player his very own centre where all the world's leading synthesisers can be played and compared.

The story of The London Synthesiser Centre is incredible. The store has grown in stock and turnover and has now rapidly become Britain's premier centre for anyone interested in synthesisers and synthesiser technology.

More and more people are coming to the London Synthesiser Centre for their keyboard requirements because they know that at Chalton Street they will find the service and professional expertise to take much of the trauma out of buying one of these expensive and complicated instruments. The London Synthesiser Centre's reputation has grown through word of mouth from people who became the shop's first customers and were amazed at the excellent service they received.

During the shop's opening days, just about every person who came into the shop came in to make a purchase. Now, although more people are buying their synths from the London Synthesiser Centre, many more people are coming in just to have a look around the shop because they have heard about the fantastic selection of synthesisers



available at the London Synthesiser Centre.

A big feature about The London Synthesiser Centre is that it is more than just a place to see and buy synthesisers. The shop will also undertake to do various modifications to synthesisers.

The most popular modification is installing interface facilities into keyboards so that one synthesiser can be plugged into another. Of course the London Synthesiser Centre also do part exchange and this means that there are always plenty of good second-hand synthesisers in stock.

This demand for more modifications and overhauls has led to Chase Musicians planning the opening of proper service facilities. This has now lead to a separate workshop where all servicing of keyboards are carried out by their

expert service engineer.

As part of the ever-increasing expansion of Chase Musicians and the London Synthesiser Centre, a second shop is also due to open, shortly. This will enable Chase Musicians to devote one shop to the sale and promotion of the bigger and grander keyboards while the second shop will specialise in smaller synthesisers, pedals, accessories and equipment like sequencers.

The keyword at Chase Musicians is "expansion" and this not only encompasses the physical growth of the London Synthesiser Centre but also the expansion of services to the customer such as the ever-popular demonstration evenings which impart so much knowledge and expertise to musicians who are interested in synthesisers and the opening of the London Synthesiser School.



# Chase/Arp international demo

## Play the ARPS at CHASE

Both ARP and The London Synthesiser Centre know how forbidding the world of synthesisers can seem at first to novices. Terms and effects like VCO's, oscillators, and polyphonic are so much mumbo jumbo to newcomers to the synthesiser world. This is why The London Synthesiser Centre got together with ARP to organise special demonstration evenings where top demonstrators could show off, and explain, the world's best synthesisers to the public.

One of the most successful ARP/The London Synthesiser Centre evenings ever held took place recently at the Ambassador Hotel in London when top ARP keyboardman John Shuykun flew in to show off the ARP range.

John introduced most of the ARP range which included the Odyssey, ARP 2600, Axse, and Little Brother. This was a rare opportunity to hear the amazing sounds that these fabulous synthesisers are capable of when put in the hands of a master player.

One of the most popular ARP synthesisers is the ARP Omni about International Musician's keyboard consultant said: "... it produces a very realistic string section and a polyphonic synthesiser .... It's really quite incredible - and unexpected - to hear mighty church organ sounds issuing from little single keyboards perhaps 3ft in length".

The ARP Omni has many space-age features that you will not find in any other synthesisers in its price range. Some of these innovations, which have made the ARP name one of the most respected have given musicians freedoms and means of expression unattainable from similar synthesiser.

The ARP Omni is the first polyphonic keyboard from this manufacturer. The Omni gives musicians unlimited orchestral and symphonic sounds in a single keyboard. Fantastic stereo circuitry can give you strings coming from one side of the stage and piano on the other. Other synths that offer a string facility often are criticized for the artificiality of the string sound. Not so the Omni where a new technical process achieves a string



ARP and London Synthesiser Centre staff line up at the recent demo evening. Below John Shuykun demonstrator.



## evening a resounding success

sound that is indistinguishable from the real thing.

The key to the Omni's big sound is its ability to produce several different sounds simultaneously. For instance, you can play violins and horns together, with a separate string bass on the left end of the split keyboard. Or, you can have a slow, delayed attack on the strings so that they can only come in when you play sustained notes. Short staccato horn notes will play alone. Or you can play a funky synthesiser bass with lots of resonance against a nice bright piano

The full range of ARP synths can be seen at London Synthesiser Centre. The most popular ARP is the Odyssey which offers musicians from all fields of music unequalled flexibility and reliability. Playing an odyssey lets you turn the music you feel into music that can be heard. Go to any concert and you'll no doubt see an ARP Odyssey in use: the world's leading performers use this synthesiser.

For the ultimate in professional portable synthesisers, turn to the ARP 2600. This incredible instrument is used by such musical luminaries as Stevie

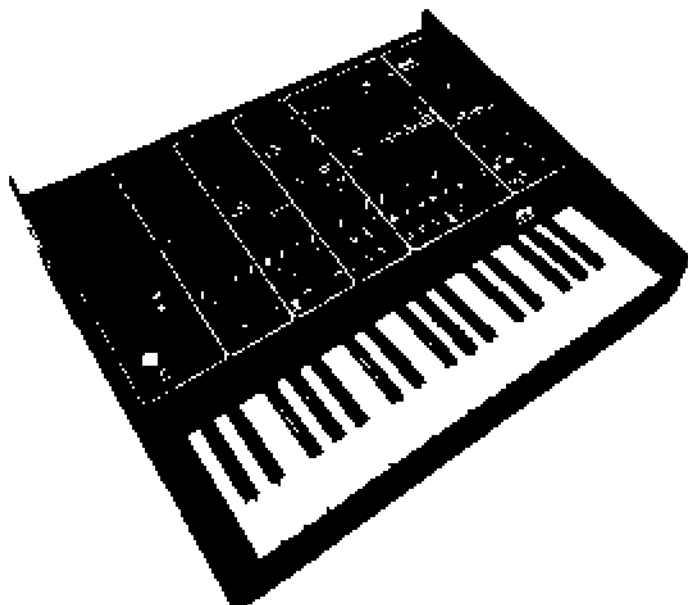


Also present at the show were Mr. Amrik Singh-Luther Director of Chase Musician's and Mr. Ken Achard Managing Director of Stateside Electronics who said that he is "pleased that synthesis is being promoted so enthusiastically and effectively by the London Synthesiser Centre".

Wonder, Weather Report, and hundreds of other influential players. The 2600 is the standard by which all other synthesisers are judged and it is now considered standard equipment in any good recording studio. The ARP 2600 is fully compatible with other ARP synths and it can be played live without patchcords or modified with patchcords. This means a player has total programming control for composition, studio work, or live concerts.

If your budget doesn't stretch as far as the 2600, The London Synthesiser Centre can supply you with an ARP Axxe. This low-priced and portable synthesiser can satisfy any musical requirement and features the same components used in the Odyssey and 2600 so you know you are buying the same quality.

The Axxe gives you a range of easily programmed sounds and the layout is simple but comprehensive with colour-coded sliders to let you instantly switch into whichever sound you have selected.



ARP ODYSSEY — "UNEQUALLED FLEXIBILITY"



ARP 2600 — "THE ULTIMATE IN PROFESSIONAL PORTABLE SYNTHESISERS"



## Chase Musicians into strings and pianos?

Yes, The London Synthesiser Centre are now featuring two great add-on keyboards from Hornby Skewes, the Logan String Melody II and the Crumar Roadrunner Electronic Piano. The Logan String Melody II gives a complete string orchestra as well as a solo organ and accordion, and is of course available from the London Synthesiser Centre in Euston.

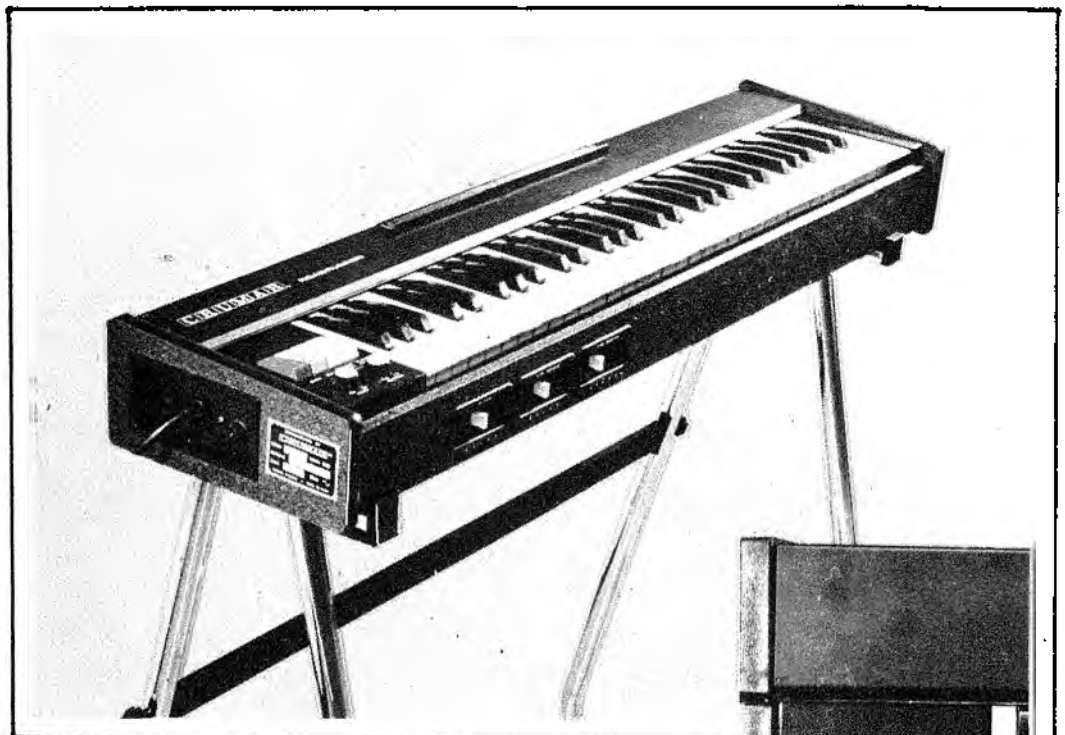
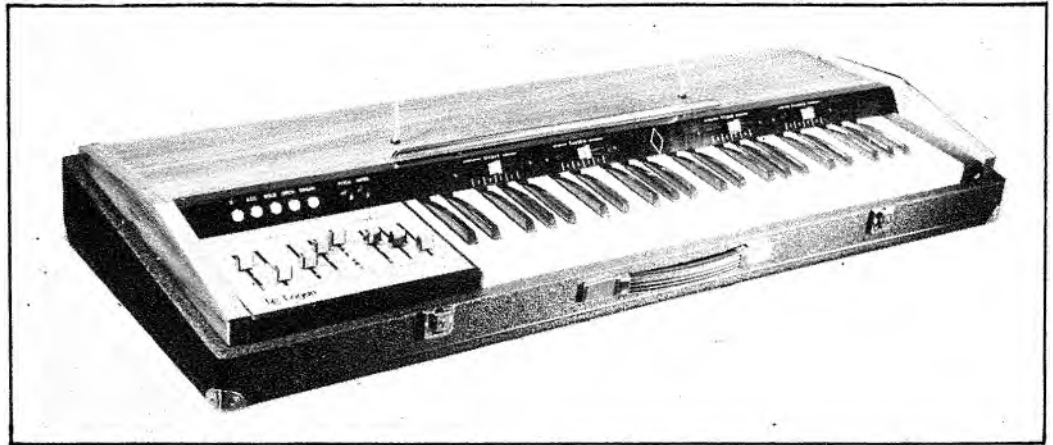
### The String Melody II

is handled exclusively in the U.K. by Hornby Skewes. It is an extremely versatile string machine. The 4-octave keyboard splits into two independent sections, Treble and Bass, so that the musician can build up his own individual combinations of Violin, Viola, Cello and Bass to form a completely "personalised" string orchestra. This can be done either with the sounds of the various solo instruments (using the "Solo" tab) or with the "ensemble" sounds (using the "O" tab). There is also a preset "ORCHESTRA" mixture, and last but not least "ORGAN" and "ACCORDION" tabs.

All the voices are individually slider-controlled, as are Sustain and Attack (with Treble and Bass section controls independent of one another) and Bass Percussion.

The instrument, one of the most sought-after string machines on the market today, comes with a suitcase-type cover, complete with expression pedal.

By far the most successful of Crumar's keyboards, the Roadrunner is distributed exclusively in the U.K. by John Hornby Skewes & Co. Ltd., and offers a very attractive package. It has been developed by Crumar from their famous Compac Piano, one of the first electronic pianos on the market. It has a 5-octave

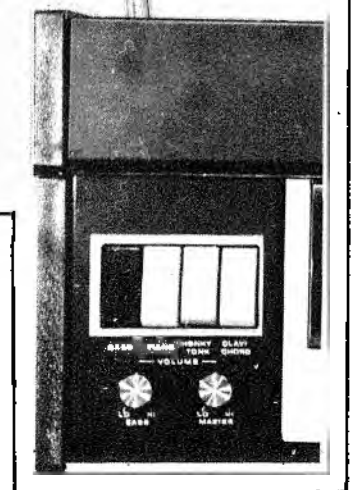


keyboard, with Piano, Honky Tonk and Clavichord sounds which can be played individually or mixed. There is a two-octave Bass Extension, with independent Volume Control, which can be fed through a separate amplifier. Slider controls are provided for Vibrato Speed and Vibrato Depth, and with the Pitch Control slider perfect tuning can be obtained instantly.

Despite its sturdy construction and multiplicity of fea-

tures the Roadrunner weighs in at a highly portable 24 lbs, and comes complete with Sustain Pedal, chrome plated legs and carrying bag.

So why not drop round to the London Synthesiser Centre and try out these attractive Hornby Skewes products.



Above: Crumar ROADRUNNER Electronic Piano  
Inset: Close up of ROADRUNNER controls  
Below: Logan String Melody II string synthesiser

# Now Chase gets the Cat

The Cat electronic synthesiser is one of the lowest priced professional-grade synths available today and can be seen, heard and, most important, played at the London Synthesiser Centre.

Many pro musicians have been using the Cat on both live gigs and for recording, including David Bedford, Dave Greenslade and a new West Coast rock trio, Burns, Renwick and Rags.

The Cat is equally, if not more, attractive to semi-pro musicians because, for under £650 an amazingly versatile and comprehensive synth is available. The flexibility of the instrument makes it suitable for any kind of music from Heavy Rock to Avant Garde jazz.

The London Synthesiser Centre has recently added the Cat to their amazing array of synthesisers, and feel that their enthusiasm for the instrument is only exceeded by that of their customers.

Dave Greenslade, a keyboardman with a long history in rock, chose the Cat as one of his frontline instruments with his band Greenslade.

Dave Bedford, an arranger and keyboardman who has worked with Mike Oldfield onstage and in the studio and is also involved in solo work is a very creative musician and writer. The Cat works for him. It can work for you.

The keyboard consultant for International Musician and Recording World,

tested a Cat synthesiser and not only wrote glowingly about it, but also decided to get one for himself. In his Keyboardcheck he said: "I like the Cat very much indeed. For a synthesiser set low down in the general price scale, it boasts an extraordinary number of features".

"It contains enough positive features and enough intelligence in its design to create the overall impression of a tough, distinctive little keyboard".

Offering the best of both worlds, high quality performance and professional features, then it was designed around the basic but crucial concepts: Ease of operation, solid construction and enough workable features to allow the musician total versatility.

The list of features on the Cat is staggering, many of them unique to the Cat and many to be found only on synthesisers costing up to three times as much.

Other well known musicians who have had praise for the Cat have included David Bedford who felt that "for such a compact instrument it is exceptionally versatile" and Dave Greenslade who reckons that it is "tremendous value for money — what other American synth can offer such versatility and professional quality in this price range".

There is a special sub-octave feature on each of the two VCO's giving the unit

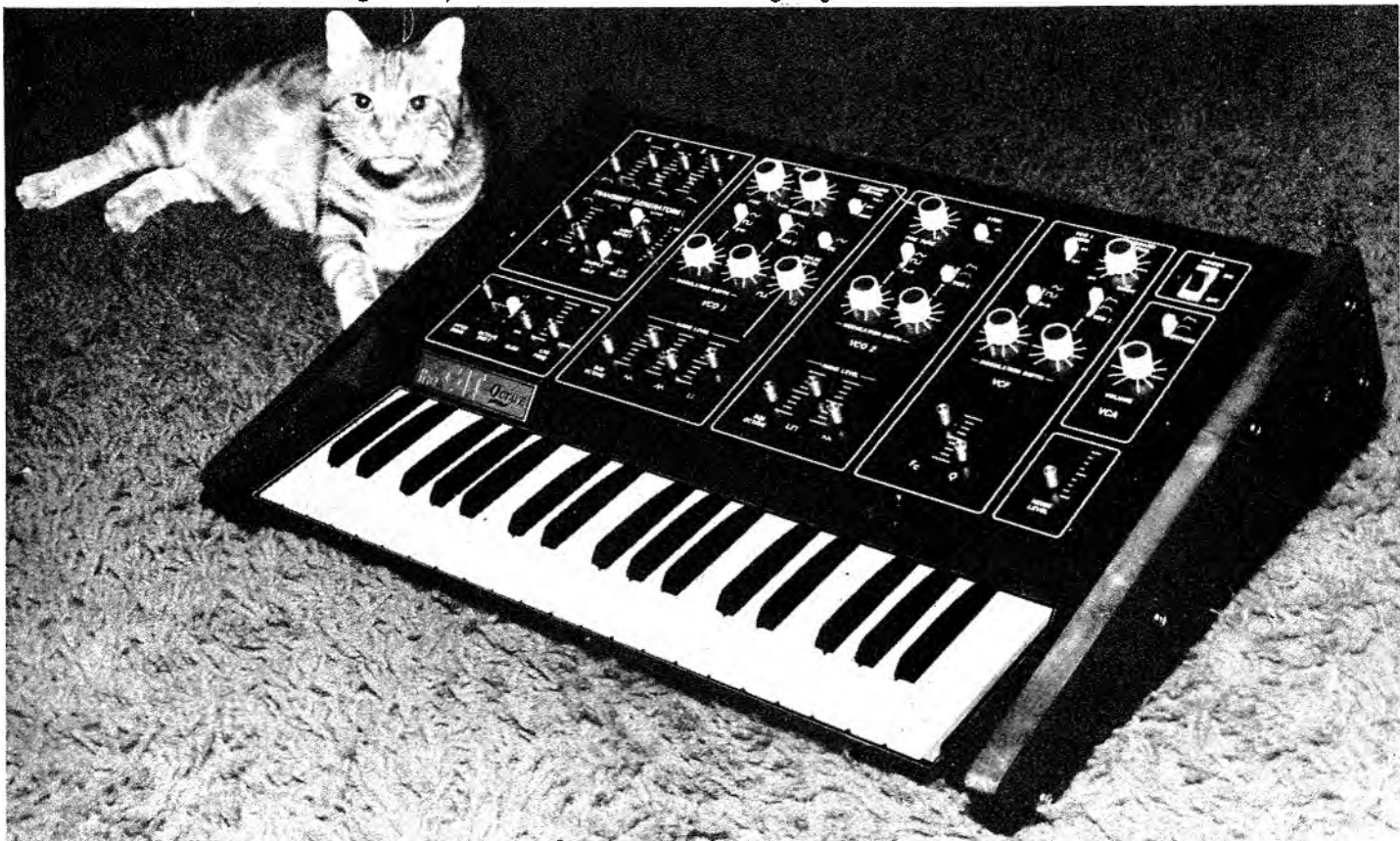
an effective depth of four oscillators. The oscillators have wave forms that can be simultaneously mixed. Oscillator 1 can be controlled by the highest or lowest note on the keyboard for monophonic or polyphonic playing. The waveforms on this oscillator are sawtooth, triangle, modulated pulse and sub-octave square.

Oscillator 2 is controlled by the low note on the keyboard and has square, sawtooth and sub-octave square waveforms.

The keyboard is simplicity itself. 37 notes (C to C) combined with a transpose switch, shifts the entire instrument up or down two octaves. The pitch bend shifts the unit up by one octave and glide can be further controlled by an optional footswitch.

The inner construction of the Cat is of the highest standards, the innards include such features as high-stability laser-trimmed resistor networks, Lace 'n' Lock connector plugs, socket mounted integrated circuits, gold-plated keyboard contacts and much more.

The Cat is of course available through the London Synthesiser Centre, so if you feel like stroking a Cat in the near future it would be worth your while to go along the showroom in Chalton Street.





## Great Hohner/Korg demo evening organised with the London Synthesiser Centre



More people than ever packed into the New Ambassadors Hotel on December 8th to catch the latest developments from Korg when the London Synthesiser Centre and Hohner got together to launch a demonstration evening of products that turned out to be a Seventh Heaven for synthesiser freaks. Amongst those that attended the show was Sean Leary, Hohner's enthusiastic publicity and advertising manager.

The evening was the latest in a string of highly successful demo evenings that have been organised by the London Synthesiser Centre as part of the shop's plan to introduce the wonders of the modern keyboard to people everywhere.

The entire famous range of Korg products were put through their paces by demonstrator Alec Leader who showed that, in the hands of an expert, a Korg synthesiser was capable of broadening the horizons of music.

As well as the Korg range, Hohner keyboards were there in



abundance and the Pianet T, Clavinet D6 and Hohner international keyboards were all put through their paces.

Questions were asked and admirably answered by the Chase team and representatives from Hohner and Korg who took pains to make sure that no-one went away without a better understanding of what Korg synthesisers are all about.

All the synthesisers in the range were able to be heard one after the other for direct comparisons to be made with the best ease for the listener and Alec Leader showed everyone how the fabulous new Korg polyphonic synthesisers could sound like an entire orchestra.

For anyone interested in keyboards and synthesisers, the London Synthesiser Centre demonstration

evenings are the best thing to hit the London scene in ages and if you haven't been to one of these demonstration evenings you would be foolish not to get in touch with The London Synthesiser Centre and make sure you get along to the next evening in the series.

Where else can you see all the synthesisers from one manufacturer in one place at one time being shown off and put through their paces by top demonstrators who are able to bring out the most in the synthesisers they are demonstrating.

There weren't many people who walked out of the New Ambassadors Hotel after the Korg evening who did not immediately want to get hold of a Korg synthesiser for themselves after seeing how their music could be stunningly produced with one of the Korg machines.



## The best range of Hohner/Korg at Euston



Model M-500

Korg is one of the fastest-rising names in the synthesiser business and the company really made its mark at the recent NAMM show in Atlanta when it launched its brand new models to take care of the most demanding musician's requirements.

Down at the London Synthesiser Centre you can hear and play all the top Korg synths and really get to grips with these fully-professional instruments that are fast making their reputation among top recording artists for their superb sounds and reliability.

One of the stars of the Korg range is the PS3100 polyphonic synthesiser. In case you don't already know, 'polyphonic' simply means that all 48-notes on the keyboard can be played at the same time. The control fascia of the PS3100 gives full modification powers to a player to mould the instrument's sound to his exact requirement through a comprehensive set-up of filters, generators, and modulation generators which introduce ethereal effects into your music.

Further up the Korg range is the fantastic PS-3300 polyphonic synthesiser which can sound like everything from a wah-wah guitar to an out-of-tune honky tonk piano. This synthesiser is so incredible in the scope of sounds it can produce that the best thing you can do is take a trip to Chase Musicians and get your fingers dancing over the keyboard of this amazing baby.

If your budget doesn't stretch to the PS-3300, try the Korg micro-preset synthesiser which gives you a dozen instruments in one ranging from trumpets, trombones, and tubas to oboes, clarinets and bassoons as well as strings and regular synthesiser sounds. Don't be fooled by the micro-preset's small size. This baby can deliver all the music you want through its ingenious micro circuitry and pitch, modulation, attack and sustain controls.



Model PS-3300

You know the name Hohner for their world-famous mouth organs and piano accordions. But did you know that Hohner is active in the world of synthesisers and now distributes one of the top names in the synthesiser industry? Hohner now handles the Korg range and is promising that Korg will soon be number one in the world of synthesisers.

At the London Synthesiser Centre you can get to grips with the top products from both Hohner and Korg. The London Synthesiser Centre always has a full selection of Hohner keyboards plugged in and ready to be played and compared. There is the Hohner Intern-

ational K2 Piano String which instantly turns your group into a full orchestra. Now you can get a full string sound whatever gig you are playing. The keyboard is brilliantly constructed to enable a player to pick out a melody while activating the full string sound that the Piano String is capable of.

Hohner are also doing thunderously well with their Clavinets and the Pianet T which can be plugged straight into an amp without the need for its own mains lead. When it comes to value-for-money, you can't do better than paying close attention to these Hohner keyboards at the London Synthesiser Centre.



Model  
PS-3100  
89



# If you're thinking of sy

Have you ever walked into a music store and said: "Show Me A Few Synthesisers". If you haven't, you should try it, you would learn a great deal. (Or rather you wouldn't).

The average music shop has some small synthesiser type instruments in stock. They may even have some string machines and the guy behind the counter will undoubtedly be able to get some sounds out of the things, but if you start asking real questions about synths, you get enough material for a farce.

There is nothing complicated about synthesisers. They are easy to work and easy to use on stage, but choosing the right synthesiser is a very different thing. For example which synthesisers have a "one volt" type keyboard. You may not know it but you do need to know. The reason is that the

world's synthesiser makers are beginning to accept that there should be an international standard in synthesisers making. So if you plan to expand your keyboard line up in the future, you need to know that the unit you are intent on buying is fully compatible. Hand that question to the High Street music shop!

But in your visit the London Synthesiser Centre you'll find a very different type of service. Here there are specialists.

What do you want to know about synthesisers? Have you read about any strange and exotic synth instruments in I.M. and long to know more? Have you got a set amount to spend on a synth and are unsure which is the best for your needs? If you need an answer to any of the above you should make the pilgrimage to the London Synthesiser Centre. It's a Mecca

for all keyboard players (and now drummers and guitarists) who are synth orientated.

The London Synthesiser Centre is here for a very long time. Chase director Amrik Singh Luther has established a business designed to last for 30, 40 or even 50 years. He has made an investment for the long term future of electronic music. That means that when you visit the London Synthesiser Centre you're going to get the type of advice and knowledge that will ensure you the right instrument and will also ensure all your future synthesiser needs are catered for.

The synthesiser market is exploding. Four years ago you could count the number of proper synthesisers available in the U.K. on the fingers of one hand. Today there are dozens. Tomorrow the synthesiser will dominate contemp-



# nthesisers, think Chase



*Mr Amrik Singh-Luther Director of the London Synthesiser Centre.*

orary music.

The synthesiser was commercially born in the middle nineteen sixties when an American engineer developed a system capable of producing controlled synthesised music. In the early years the technology was used to produce classical music – “Switched On Bach” by Walter Carlos is the most famous single example – it took British rock musicians like Keith Emerson to convert the instrument into the powerful force in Rock it has become today and the London Synthesiser Centre caters exclusively for the needs of all those musos interested in the new synthesiser technology.

You may remember the incredible synthesiser set-ups that Emerson used to cart with him on ELP tours. It now turns out that much of that equipment was fake, just designed for show, but he did show the way ahead. The lead has now been taken up by the London Synthesiser Centre and you can be sure that all their synthesiser’s are very real indeed – all switched on and ready to play and compare.

In the early days synthesisers were impractical beasts for stage

use. The superstars could use them because they could afford the huge backup teams needed to transport and maintain them, but average musicians found the machines far too complex.

About 1970 the pre-set synthesizer appeared on the market. ARP synthesiser of Boston, Mass. were forerunners in the development of these units. Whilst not ideal – the basic flexibility of the synthesiser was compromised – it nevertheless offered musicians a chance to take synthesiser sounds on stage at a fraction of the cost that modular units entailed and in a far more reliable package.

Today synthesisers have the best of all worlds. They come in small, reliable, but flexible, packages. If you take into account their functions they cost only a fraction of the price that was originally asked for synthesisers in the 1960s. Whilst offering the discerning and experienced player the opportunity of endless sounds, many of them also have a pre-set sound section which can be used as an alternative to individual sound shaping.

Of course the big news in keyboard based synths is the polyphonic models which have been available for six months or so. For years keyboard players have resisted experimenting with synthesisers because only one note at a time could be played. The introduction of the Polymoog, the Yamaha CS80 and also the ARP Omni and the Korg Polyphonic has now changed all that, and all these models are of course always available for your inspection at the London Synthesiser Centre.

Now synthesisers are taking the great leap forward and are using other musical instruments as their control system. Typical of the new instruments are the Roland Guitar

Synthesiser. The ARP Avatar and the Synare Drum Synthesiser. In the future it is expected that other instruments will be tamed and mated to the synthesiser.

Naturally the very latest developments in synthesisers are permanently on show at the London Synthesiser Centre. If you want to see the future, make a visit!

All the developments to date in this field are in stock at the London Synthesiser Centre and they are confident that they will keep abreast of the synthesiser technology as it changes and develops.

The London Synthesiser Centre is a forward looking shop and they have already established themselves as the centre in the United Kingdom for synthesiser enthusiasts. Chase staff report customers making the journey from places all over Europe just to come and see and buy from their comprehensive range of synthesisers

Their customers journeys are not wasted as the London Synthesiser Centre is tailor-made for contemporary musicians. The stock is wide, the atmosphere is friendly and relaxed, and the service is second to none. Expert staff are always there to help you reach the right decision about which make and model would most suit you.

But the London Synthesiser Centre is more than just a retail shop. They have an ongoing programme of synthesiser demonstrations aimed at reaching and educating a wider section of the musical public. Chase have long realised that there has been a need for a place where serious musicians can find out more about synthesisers, and this is why they are now opening Britains first synthesiser school. Surely an exciting new development!



# Yamaha

In a few short years Yamaha keyboards and synthesisers have become synonymous with superb workmanship, highly-advanced technology and incredible value for money and so naturally enough the London Synthesiser Centre made a point of stocking Yamaha synthesisers right from the start.

In the hands of top performers such as Stevie Wonder and Herbie Hancock, the instruments have met with universal acclaim and enabled the company to expand their impressive range which can be seen at London's premier keyboard and synthesiser centre of Chase Musicians.

The store, which is situated in Chalton Street, NW1, boasts one of the finest selections of Yamaha electric pianos, organs and synthesisers to be found anywhere in the country.

With the introduction of its electric piano, the CP30, Yamaha became the only leading maker of acoustic instruments to venture into this field.

The action of the piano is simple, with each one of the 76 keys being pivotted to active a leaf switch when the key is struck. The keys themselves are of grand piano length, and the pivot is placed far enough back to provide a weighty but not a stiff feel for the keyboards.

The piano is not a single-toned instrument, offering a wide range of sounds and combinations. It is a stereo instrument and many of its best and most characteristic sounds result from this facility in combination with the different tonal settings that are available.

The latest development in this field is Yamaha's CP70 which gives the sound of a grand piano. The London Synthesiser

Centre said: "It is really quite amazing, it's like having a baby grand piano, yet it can be split up into two pieces so it can be carried about on the road quite easily"

Pride of place at the London Synthesiser Centre's the Yamaha section goes to the CS range of synthesisers. Yamaha developed the world's first fully polyphonic synthesiser, the massive £40,000 GXI as used by Stevie Wonder and Keith Emerson. The commercial offshoot of the research and development programme has resulted in the CS synthesiser.

The frequent criticisms of portable synthesisers are that they don't offer the freedom, versatility and expression the working professional needs and demands on stage. Yamaha reckon they have changed all that with their CS50 and the staff of the London Synthesiser Centre heartily agree.

## tone selectors

It is both versatile and polyphonic, enabling four notes to be played simultaneously. A total of 13 tone selector switches are incorporated giving flute, harpsichord, guitar and the sounds of other musical instruments. The touch response then adds delicate nuances so the musician can create the feel of a real performance by real instruments simply by increasing pressure on the keys.

Of course it is possible to set the controls manually, and the 49 key keyboard gives quite a range in itself, but by using the transposition switches it is possible to cover a range of seven octaves.

The CS60 is a polyphonic synthesiser which enables eight notes to be played at the same time, and incorporates a mem-

ory bank which helps preserve your original creations.

This feature is both fast and simple to operate and will prove invaluable when you have no time during a performance to fish around for the right sound. The 22 levers in the programmable section let you create the same sounds as on a studio synthesiser.

The CS80 is really the best in an excellent line of synthesisers. It has outstanding features and versatility which place it head and shoulders above other synthesisers in this class.

It is a polyphonic, enabling eight notes to be played at the same time and these notes are produced by 16 tone generators divided into two channels that can work alone or be mixed in different proportions as the player chooses. The musician selects as he wants and is not held back by the limitations imposed by the instrument.

## KEYBOARD

One of the CS80's most important feature is the "dynamic keyboard". This means that the keyboard responds to the player's touch and allows similar expression that you get from an acoustic piano.

## MEMORY BANKS

Four memory banks are also included, the sounds from which can be recalled simply by pushing the right lever.

## PROGRAMMABLE SECTION

The 22 pre-programmed sounds can also be selected in a similar way, thereby enabling the right sounds to be produced quickly during a live performance.



Yamaha CS50



# at Chase



Yamaha CS60

The London Synthesiser Centre is full of praise for Yamaha synthesisers, they say that "They are very well laid out with a very professional finish. The layout has been done in a logical sensible way.

Usually it takes a lot of time to really suss out a synthesiser, but that is not the case with Yamaha. It is very easy to pinpoint the problem when something is not quite sounding right, so the player can get on with making music which is what it's all about.

## EFFECT CONTROLS

The preset controls, which are extensive, are located in a single panel running the length of the five-octave keyboard and placed directly above it. This panel itself is divided into two separate sets

of presets which may be played separately or mixed together with a simple control.

A set of overall controls set to the left of the keyboard give chorus and vibrato effects. Sustain, portamento and foot pedal selectors for wah-wah and expression are provided as is a very interesting automatic "glissando" effect.

It is a beautifully constructed musical instrument from any angle – the layout is good, the design and appearance excellent and the sound and musical potential extremely satisfying.

Chase also believe that Yamaha

synthesisers are tremendous value for money, many people come into the shop expecting the CS80 to cost about £7-8,000 when in fact it sells for about half that price

The London Synthesiser Centre have found the Yamaha range very popular with their many customers, amongst whom are a lot of name bands including Gordon Giltrap and Vangelis.

Dennis Holloway Sales Director of Kemble/Yamaha has been a wonderful aid to the London Synthesiser Centre and its rapid development, and thus enabling Chase to present in one place, side by side the greatest range of Yamaha keyboards in Europe.



Yamaha CS80



# Chalton Street for Elka Rhapsody

Elka Orla is one of Europe's leading manufacturers of organs, keyboards and synthesisers for both the domestic and professional market. The London Synthesiser Centre always have a full selection of these terrific value-for-money instruments on permanent display at the Chalton Street headquarters of the London Synthesiser Centre.

The London Synthesiser Centre concentrates on stocking Elka keyboards that are going to most interest modern keyboard players. These models include Elka Solist synthesisers and the Elka Rhapsody 5-octave keyboard.

The Solist is a top-quality monophonic synthesiser containing 9 incredibly realistic orchestral sounds with the facility for the player to modify each of the pre-sets on the synthesiser by means of a unique "variation" button.

Among the wealth of sounds you can get from an Elka Solist are: trombone, trumpet, sax, clarinet, oboe, guitar, Hawaiian guitar, violin, flute with addition of "spacey" effects like "Telstar" and "Cosmic".

You don't have to pay incredible sums of money to get a fully versatile

## ELKA RHAPSODY 610



synthesiser. The Solist has a variations button which enables a musician to add vibrato, glide wow, and filtering just like synthesisers which are many times the price of the Elka Solist.

The Elka Rhapsody 610 is another ever-popular Elka keyboard to be found at the London Synthesiser Centre. This is a portable 5-octave keyboard which features sounds encompassing those of orchestral strings as well as grand piano sounds and clavichord effects.

One of the main advantages of the Elka Rhapsody over other keyboards is that the Elka instrument is completely portable. This is an incredible bonus as any musician who gigs regularly will know. When you have to set up your equipment night after night, you want something that is going to be assembled and dismantled in minutes. The Rhapsody delivers this promise.

To set the keyboard up all you have to do is unpack the stand and legs, assemble them, plug in and switch on. Your Elka Rhapsody is ready to deliver the sounds of violins, strings, piano and clavichord and modify any of these sounds with a swell pedal and sustain and decay controls.

As an optional extra, Elka also supplies a set of bass pedals which can be utilised with the Rhapsody - very handy if the bass player has flu on an important playing night!

A visit to the London Synthesiser Centre will reveal all these Elka products and more.



ELKA  
X55/P PORTABLE ORGAN



ELKA  
RHAPSODY 490

# ROLAND and the LONDON SYNTHESISER CENTRE

Amrik Singh Luther and Brian Nunney understand each other. Both are in the synthesiser business.

Amrik is the boss of The London Synthesiser Centre (a division of Chase Consultants Ltd.) and Brian is the boss of all Roland products in the U.K. The mutual understanding and respect now becomes apparent.

Surprisingly both organisations are fairly new. Brian's company, Brodr Jorgensen (U.K.) Ltd. — a subsidiary of the Danish Brodr-Jorgensen organisation, European distributors of all Roland products — only started U.K. operations three years ago. In that time he, and his loyal team, have pushed Roland to the top of the tree in Britain. He's the first to admit, however, that the products themselves share the responsibility for the success.

"When I first started organising the marketing of Roland in the U.K. I didn't dream of the explosion of products that Roland Japan were planning for 1976 and 1977", he says. "The products that have streamed forth from the incredibly fertile mind of Ikataro Kakehashi are unbelievable. It seems that with a few strokes of his design pen he has pushed musical instrument technology ahead by ten years".

Amrik astutely observed this musical explosion and immediately ensured he was in on the ground floor. From the first day of opening the London Synthesiser Centre has had a strong involvement with Roland in the promotion of electronic synthesiser music in the United Kingdom.

"I became interested in electronic musical instruments when I was looking for a keyboard to play in my Sikh church. I examined the market and in fact I bought various instruments to find out what they were really like. Most of them I sold fairly soon after I got them because they either seemed to be limited or because they didn't produce quite the right sound. Then I discovered Roland.

The first instrument from Roland I tried was the SH2000. I thought this was an incredible instrument compared to some others that I had played and I immediately started to investigate the entire range. To my astonishment I discovered that almost every item in the Roland Range was an improvement on most of the similar products on the market.

Indeed Roland had many products available in areas that offered no alternative. This was at the time when I was seriously considering opening London's first Synthesiser Centre. Naturally I investigated Roland and Brodr-Jorgensen very carefully. When I did open I made Roland one of my main lines. Brian Nunney was of enormous help during our early days.

From his very exalted position as boss of Roland in Britain his marketing experience is considerable. He took



Brian Nunney

Amrik Singh Luther

time to pass on as many tips and pieces of advice as he could. I'm very grateful for that. Now that the London Synthesiser Centre is recognised as the synth centre in London I am pleased to say that we're able to recommend Roland products because of their high quality and their good back up service.

The enthusiasm between these two men is clear for all to see.

Brian Nunney: "Our initial confidence in the London Synthesiser Centre has been more than justified. It has become a most important outlet for Roland in Britain and we make sure that every new Roland product — and they are appearing almost every month — has an early showing in the store".

One of the most important developments that has come out of the growth of Chase is the Synthesiser School, which opens very shortly. Naturally Roland will play a very big part in the course, especially as some products from the Roland stable are at the very frontier of musical technology.

Typical of this advanced range is the Roland Micro-Composer, the world's first digital sequencer harnessed for use in music. Discussion and explanation of this, and the other revolutionary ideas from Roland, will form a large part of the lecture course.

Brodr-Jorgensen (UK) Ltd. and the London Synthesiser Centre are unusual operations. They are highly successful and their future are inextricably bound together.



## Roll up to a Roland evening

OWN UP! You must have wondered about those fabulous Roland instruments.

Roland is THE most inventive company operating in the musical field and with the introduction of the Guitar Synthesizer, the Chorus pedal, the fantastic range of conventional synths, the company has produced products exciting enough to make even Jimmy Page's mouth water (he's got a Roland Guitar Synth).

Now you're going to have an opportunity to find out for yourself about these exciting new products. A special Roland demonstration evening has been planned at THE LONDON SYNTHESISER CENTRE and star Roland demonstrator Adrian Lee will be putting all the latest Roland musical technology through its paces.

The show is on January 12th 1978 at The Ambassador Hotel, London at 8 pm. Entry is absolutely free. This is your chance to get close to instruments like the Guitar Synth, the System 700, the System 100, the SH2000, the SH5 and the whole range of chorus effects.

Adrian Lee is a super-talented multi-instrumentalist. For the last year or so he's been travelling the world demonstrating Roland and he gave up a promising recording career to devote himself exclusively to the promotion of Roland goods.

Also on show will be the fantastic Roland Micro Composer. This is the world's first data processor to be built exclusively for use with synthesisers. Essential musical Data



Adrian Lee

is fed into the processor and it then causes a synthesiser to play exactly the information fed in.

Musicians using the Micro-Composer have to be able to read and write music fluently, but with this qualification the need for great manual dexterity on any instrument disappears. Having written in score form the music the composer wants to hear, he can then enter this information into the Micro-Composer using digital programming. The Micro-Composer has a memory and it will then play back whatever has been entered. The Composer's memory may be emptied onto a cassette tape for storage and re-entered at a later date. A full demonstration of this startling invention is also planned for the evening.

## New Roland organs expected soon

AT LAST Roland have entered the electronic organ market. Two superb professional organs are about to become available to British musicians from the London Synthesiser Centre.

Called the VK6 and the VK9, the instruments are the forerunners of a new generation of electronic organs. They are specially built to instantly interface with synthesisers; in fact the upper keyboard of both instruments is alone capable of controlling and providing the input of a synthesiser. With one of these organs you only need a synth module, you do not need an extra keyboard.

It has to be understood that despite the fact that Roland haven't previously marketed electronic organs, there's a wealth of experience behind these new models. Roland's boss and Chief Designer Ikataru Kakehashi designed the famous Ace Tone organ which became a best seller all over the world in the 1960's. When he first set up in business in the nineteen fifties it was originally as a maker of electronic organs. In a way the company is returning to its roots in building organs again.

These instruments will, of course, be available at the London Synthesiser Centre and organists (and keyboard players in general) will be interested to learn about the following features.

Particular attention has been paid to the percussion section of both organs. Originally organs that produced sound via tone wheel generators had a really biting percussive sound to them and recently electronic organs seem to have lost that edge. Roland have put it back, ONLY MORE SO!

Drawbars are a very important feature on both models. Roland feel that only drawbars allow the professional player proper room for musical CREATION. On the VK9 four sets are provided for tones on both keyboards and three drawbars control bass sound.



Keyboard players will already be familiar with the famous Roland Revo rotary sound cabinet. This is a tone cabinet which shifts sound electronically rather than by mechanical action and these organs incorporate this famous feature.

The VK9 has 61 notes on each manual and a 25 note pedal board. The VK6 has two 44 note keyboards and a 13 note pedalboard. Naturally the specification on the VK9 is more comprehensive than on the VK6 but both instruments have been designed with the professional in mind.

Suggested retail price of the VK9 is £4,499 including tax and the VK6 is £2,499.





## The Ultimate is now available!

FOR YEARS guitarists have dreamed of new sounds. Now there's a whole Galaxy of new sounds waiting to be discovered. Roland have built a guitar synthesiser!

In the last ten years millions of pounds have been spent developing effects pedals and special pick-ups to improve guitar sounds. Now they are all **OBSELETE!**

The Roland G500 Guitar Synthesizer is Polyphonic and Paraphonic. This means that full chords on the guitar can be synthesised and it also means that the output from the unit can be split three separate ways through three separate amps.

The Roland Guitar Synthesizer consists of two units. The guitar looks and plays much like any ordinary high quality solid electric guitar. Roland have formed a special guitar making company with the makers of Ibanez guitars to ensure that the Roland guitar is of the highest possible standard. The Roland guitar functions just like any other guitar with two pickups, one humbucking.

The guitar plugs into a synthesiser unit which stands on its own legs (or on top of an amp) near the guitarist. The lead between the guitar and the synthesiser unit is a special 24-core lead and this makes it possible for the guitarist to operate many controls normally found on a synthesiser from the guitar.

The second pick-up on the guitar is a special **DIVIDED** pick-up. In effect this is six small pick-ups — one for each string — all sending the sound of the string they pick up to the synthesiser section. Because of this it is possible to select different sounds for each string.

Having sent the sounds from the guitar to the synthesiser control unit via the special 24-core lead, you can then start to work on the sounds at the control section. Like most synthesisers, it is usual to work from left to right along the control panel when adjusting sounds.

The first section you come to on the panel is the **GUITAR**. This is the control for normal guitar sounds and on this section there is a slider which alters the tone of the standard guitar sound. Because the control unit has **THREE** outputs, it is possible to select which output any particular sound shall go to. Imagine you are using three Roland amplifiers one to the left of the stage, one in the middle and one on the right. You would probably choose that the standard guitar sound should come out of the amp in the middle of the stage. You therefore select that the Guitar section goes out of the right output to feed into the amp in the middle of the stage. You can naturally continue to adjust the standard guitar sound at the amplifier.

Next section on the control unit is the **POLYENSEMBLE**. This section converts the output of the guitar into sounds like woodwind, brass, soft reeds and such solo effects as the human voice or the harpsichord. You can use the controls in this section to get exactly the right sort of sound and this section works very much like any conventional synthesizer. Remember that because the Roland Guitar Synthesizer is Polyphonic all the strings cause these sounds to be produced and you can **BEND** strings as much as you like and the synthesised sounds will bend also!

The **BASS** section is the next section on the control panel. This section adds bass sounds to any other sounds you may have already created. This means that you can have the sound of an ordinary six string guitar, string

sounds and also bass guitar sounds (for example) at the same time. Sounds available in the bass sections include strings, bass guitar, string bass or tuba. Each sound can be individually shaped to give you exactly what you need.

The next section is called **SOLO MELODY**. This is very similar to a conventional keyboard synth control panel and it allows guitarists to play sounds that can be shaped with Square Waves, Sawtooth Waves, VCFs, VCAs and envelope controls. These terms may be strange to guitarists but keyboard players find them easy to understand. Basically this section produces the established sounds that are usually associated with synthesisers and electronic music in general. Remember that all notes can be bent as you play the guitar!

The **EXTERNAL SYNTHESISER** Section allows the guitarist to control other synthesisers. By hooking up the basic unit to a larger synth the most fantastic sounds can be achieved. The chain is endless because Roland believe in compatibility between synths.

All these incredible sounds are available at the flick of a button on the guitar. A comprehensive but simple-to-operate control panel on the guitar allows the player the switch in various actions during his playing. For example:

A normal four piece band — three guitars and drums — might be playing a Golden Earring number. At the beginning the lead guitarist wants a really raunchy guitar sound. He just selects the guitar section from the guitar control panel and a rotary knob on the guitar changes his tone. This tone control is far more powerful than any tone control built into a guitar before. It actually is controlling an equaliser on the control unit. So the number starts and the guitarist comes to the first solo. As the band want this solo to be really heavy the guitarist flicks in the Bass Section by a switch on the guitar. This means that as well as playing raunchy lead he's also delivering a thundering bass in unison. The bass player plays a counter point and it really sounds very heavy. Because the guitar player has switched the output of the Roland Control unit to different amps his raunchy guitar sounds has been coming out of an amp situated centrally on the stage but when he brings in the bass it comes out of an amp to the far right of the stage (for example). The raunchy guitar continues to come from the original amp. So an extra instrument seems to appear.

For the next part of the number the extra bass disappears and for the dreamlike centre section the guitarist brings in the Poly Ensemble for strings. These come from the third amp. And son on. All these changes are controlled from the guitar.

There is one more very important item

of information for rock guitarists. Because of the unique nature of this new instrument is possible to flick a switch which brings in **INFINITE SUSTAIN!** Some people spend as much money as the Roland Guitar Synth costs just trying to get that single effect!

**This is the ultimate instrument — The Roland Guitar Synthesizer. It's fully Polyphonic and you can play it just like a normal guitar. Bend notes and the synth bands with you; but flick a switch and you've got infinite sustain — or a bass guitar — or a string section — or a full bloodied synthesiser!**





## Chase opens first synthesiser school

HOW MUCH do you really know about synthesisers? If you're at all like many musicians you understand what they are and roughly how they work but when confronted with one of the beasties you're at a loss to make the thing work.

Synthesisers are actually fairly simple in concept. But in practice some of the functions and control patterns are complicated and it's a hopeless task trying to sort out how to work them unless you know what you're doing. Now the London Synthesiser Centre provides the ultimate answer for all musicians interested in synthesisers.

The London Synthesiser School has opened in premises very near to the London Synthesiser Centre in Euston, London. For the first time, musicians and non-musicians can enrol for a course of lectures designed to describe and discuss the whole subject. Because the whole project is sponsored by the London Synthesiser Centre the cost of the lecture course will be nominal!

Courses are planned now and the coupon at the bottom of this page will ensure you a place in a course starting soon.

Celebrities and well-known musicians and musical technologists will be lecturing during the course and students will have the chance to do practical work with synthesisers.

Even if you feel you understand all you need to know about the instruments you might be making a big mistake by not enrolling. Ask yourself the following questions.

1. How many ways of controlling electronics synthesis exist?
2. What is the final difference in the musical character created when different forms of control are used?
3. Do you understand fully the replacement of manual musical dexterity by labour saving aids such as the Roland Micro-Composer?
4. What is the most effective way of introducing the emotional element into synthesised music?

These are questions of great concern to musicians working with synthesisers today. On the course, great effort will be made to find answers to these problems. For musicians approaching synthesis for the first time the basics are answered very thoroughly.

1. What is synthesis and how does it work?
2. How many options of synthesisers are available?
3. What is the principal difference between them?
4. Which type of synthesiser is most suited to particular types of music?
5. Understanding the "add on" philosophy of synthesis which allows basic synthesisers to be built up in modular form?
6. Analysing classical and popular music created by synthesisers?
7. Ergonomic methods of using synthesiser in practical situations?

8. Practical work with most makes of synthesisers?
9. Demonstrations by acknowledged synthesiser players?
10. Discussion of the "heavier" aspects of synthesis outlined above.

These are only some of the basic points covered by the LONDON SYNTHESISER SCHOOL. Interest in the courses has been tremendous and if you want to enrol on a course **MAKE YOUR APPLICATION NOW.**

Courses are being held during week days, evenings and weekends and you can stipulate which you prefer. For full details of course length, prices, time etc., fill in the coupon below.



To: The London Synthesiser Centre, 22 Chalton Street, London NW1. Please send me all the information and details of the London Synthesiser School.

Name \_\_\_\_\_

Address \_\_\_\_\_

Name the Synthesiser/Keyboard that you would like to practice on, during the course

*Bend a note, the synth bends with you*

*You can be a bass player at the same time. Whilst you're playing a solo you can switch in the bass section and presto: You're a bass player as well!*

*You can be in three places at once! Because the control section has three outputs you can amplify the Guitar Synthesizer through three separate amps. For example you can have a bass guitar sound out of one amp, violins out of a second and straight guitar from the third amp.*

*You can have five instruments at the same time. The five sections of the G500 can all be played at once. This means you can be a guitar, a string section, a bass instrument, and two pure electronic music instruments all at the same time!*

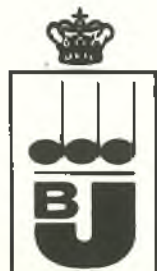
*Play a chord, all notes are synthesized. The Roland Guitar Synthesizer is Polyphonic!*

*If you're worried about how good the Roland guitar is, stop worrying. Roland and the makers of Ibanez guitars have formed a special company to make the guitars.*

# Each string is an orchestra.

The Roland Guitar Synthesizer is a new instrument. It's not just a guitar with a lot of fancy bits tacked on. If you pick up the Roland guitar — made by Japan's most famous guitar maker — you'll find that the simple control panel offers you complete control over the synthesizer part of the instrument.

  
Roland



By appointment to the  
Royal Danish Court

You're playing a number and you've selected your guitar to sound like a violin section. You can flick one switch and your instrument is also a bass guitar. Then it can be a brass section then it can be a pure guitar again — but with INFINITE SUSTAIN.

The Roland Guitar Synthesizer allows you to play normally. Bend any note you like, play any chord you like. It's polyphonic.

It's the most important new instrument this century.

Brodr Jorgenson (UK) Ltd. Great West Trading Estate,  
983 Great West Road, Brentford, Middx. TW8 9DN.  
Telephone: 01-568 4578 Telex 888941 Chamcom London.





# The London Synthesiser Centre Still the best International buy

## NEW YEAR SALE

COME AND SEE THEM ALL – IN ONE PLACE, SIDE BY SIDE AND NOT ALL OVER LONDON  
RING US FOR THE BEST QUOTES ON ANYTHING KEYBOARD – AND THE BEST SERVICE  
AMAZING OFFER. ARP OMNI SYNTHESISER & STRINGS..... £1095

ROLAND SYSTEM 100	
101 Synthesizer	£388
102 Expander	£335
103 Mixer	£195
104 Sequencer	£230
105 Speaker pair	£60
Complete System	£1208

**GREAT KEYBOARD BARGAINS!  
SHOP-SOILED/DEMO KEYBOARDS**

YAMAHA Polyphonic Synth CS60	£1550
YAMAHA Polyphonic Synth CS50	£950
ROLAND Synth SH2000	£495
ROLAND Synth SH1000	£405
ROLAND Elec. Piano EP30	£460
KORG 700	£295
EMS DK1 Keyboard	£125
EMS Synths	£675

**THE AMAZING  
ROLAND GUITAR  
SYNTHESISER NOW  
IN STOCK FOR  
IMMEDIATE DELIVERY**

SYNTHESISERS	
KORG Synthesiser Bass	£295
KORG 700S	£395
KORG 770	£395
ROLAND SH3A	£395
ARP AXXE	£520
CAT	£575
KORG 800 DV	£695
ROLAND SH5	£795
ARP Odyssey	£870
ARP 2600	£1730
ARP Sequencer	£495
ARP Little Brother	£260

POLYPHONIC SYNTHESISERS	
POLYMOOG	£2900
YAMAHA CS80	POA
YAMAHA CS60	POA
YAMAHA CS50	POA
ARP Omni	£1095
KORG Poly 2	£795
SOLINA STRING/Synthesiser Ensemble	£765
KORG Poly 1	£690

PRE-SET SYNTHESISERS	
KORG Micro Preset	£255
ELKA Soloist	£325
KORG Preset	£425
ROLAND SH1000	£425
ROLAND SH2000	£510
ARP Pro Soloist	£657
ARP Pro DGX	£735

STRING SYNTHESISERS	
SOLINA String ensemble	£515
HOHNER K2 hi piano and strings	£510
ROLAND RS202	£495
LOGAN String orchestra	£495
LOGAN String melody	£465
ELKA Rhapsody 610	£470
HOHNER K4 String thing	£315
ELKA Rhapsody 490	£280

ELECTRIC PIANOS	
HOHNER Hi Piano KL	£270
HOHNER Pianet T	£290
ROLANDE P20	£275
ROLAND EP30	£490
ROLAND MP700	£680
HOHNER Electra Pianet T	£790
YAMAHA EP30	£830
YAMAHA CP70	POA
CLAVINET D6	£420

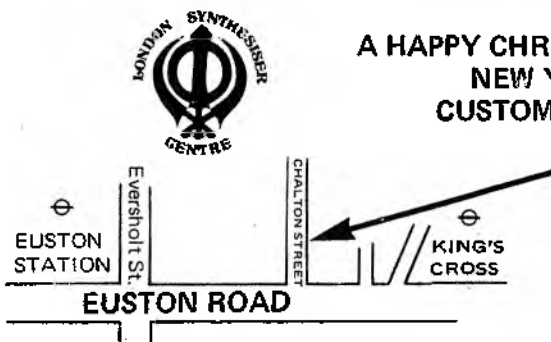
**CHRISTMAS STAR BARGAIN**  
Free Polymoog with every Roland System 700 now in stock for immediate delivery.

**CHRISTMAS STAR BARGAIN**  
Roland SH3A Synth. R.R.P. £687.  
Our Price £395.  
Roland Elec. Piano. R.R.P. £455.  
Our Price £275.

Although Keyboards are our speciality, we also have a wide range of Amplification, Reverberation and Echo Units, Effects Pedals, Speaker Cabinets, etc., etc. We're sure we can meet your needs.

SPEEDY HP \* BARCLAYCARD \* ACCESS \* WE EXPORT WORLDWIDE \* OPEN 6 DAYS A WEEK  
\*24-HOUR DELIVERY SERVICE \* EASY PARKING

A HAPPY CHRISTMAS AND PROSPEROUS  
NEW YEAR TO ALL OUR  
CUSTOMERS AND SUPPLIERS



**LONDON SYNTHESISER CENTRE**

WE ARE A LITTLE OFF THE BEATEN TRACK, BUT THEN WE DO BOAST THE WIDEST SELECTION OF SYNTHESISERS, STRING MACHINES AND ELECTRIC PIANOS IN LONDON; INDEED THE BRITISH ISLES.

2 MINUTES WALK FROM KING'S CROSS TUBE STATION OR EUSTON TUBE STATION. EASY PARKING, OPENING HOURS 10 – 6 MON TO SAT



LONDON SYNTHESISER CENTRE  
22 CHALTON STREET, LONDON NW1  
(Off Euston Road, next to Shaw Theatre)

01-387 7449



# PLAYING Country Blues Guitar

## STEFAN GROSSMAN

### PART TWO – CROW JANE

Last month we discussed a tune in the key of C using an alternating bass. This same technique can be adopted for any key and this month I would like to discuss one of the most popular blues songs in the key of E. Crow Jane is a tune that can be traced to the turn of the century. Rev. Davis remembers hearing it played in travelling carnival shows (the same place that he heard Candyman and Cocaine Blues). The progression of E, B7, A7, E, B7, A7, E has become quite well known over the years. Big Bill Broonzy adapted this to his Key To The Highway, Mississippi John Hurt used the same structure for his Sliding Delta and Rev. Davis and Blind Boy Fuller had a host of songs that relied on the same chord structure.

The transcription I have written out is a combination from Rev. Davis, Skip James and Mississippi John Hurt's playing. There are elements of all three in the arrangement. Again, the most important element to remember is to heavily accent the even beats. This will give the desired "swing". A listen to any of John Hurt's albums will illustrate this point well. I strongly recommend his studio Vanguard albums.

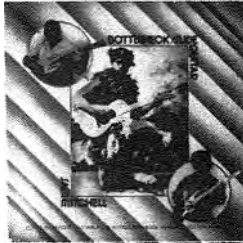
A recording of this can be heard on Country Blues Guitar (Kicking Mule Records, Snkf 129). On this version, Mike Cooper plays a simple rhythm guitar part as well as adding vocals. The transcribed arrangement is played against this. You should also note how well this arrangement fits with the lyrics. This tune should be easy and fun to master.

The musical score is written in E major (one sharp) and 8/8 time. It consists of six systems, each with a guitar line (top staff) and a bass line (bottom staff). The guitar line includes melodic phrases, some with slurs and accents, and chord diagrams. The bass line provides a steady accompaniment with fingerings and accents. Chord progressions are labeled as E, B7, A7, E, B7, A7, E. The score includes various musical notations such as slurs, accents, and dynamic markings like 'p' (piano) and 'f' (forte). The first system starts with a 'quickly' marking. The bass line is written in a simplified notation with numbers 1-4 representing frets. The guitar line is in standard notation with a key signature of one sharp (F#).

# Kicking Mule Records PRESENTS THE BEST IN ACOUSTIC GUITAR



**TOM PALEY:**  
Hard Luck Papa  
SNKF 119



**SAM MITCHELL:**  
Bottleneck Slide Guitar  
SNKF 121



**DAVE EVANS:**  
Take A Bite Out Of Life  
SNKF 122



**DUCK BAKER:**  
When You Were A Tulip  
SNKF 123



**BOB HADLEY:**  
Tunes From The Well  
SNKF 126

All the above albums come with Tablature booklets  
**SPECIAL OFFER TO U.K. RESIDENTS!**

For a limited time you can order any four of the above for £12. This covers cost of the albums, postage and handling.

Send all cheques to:

**KICKING MULE MAIL SERVICE**  
125 STUDDRIDGE ST., FULHAM, LONDON SW6.



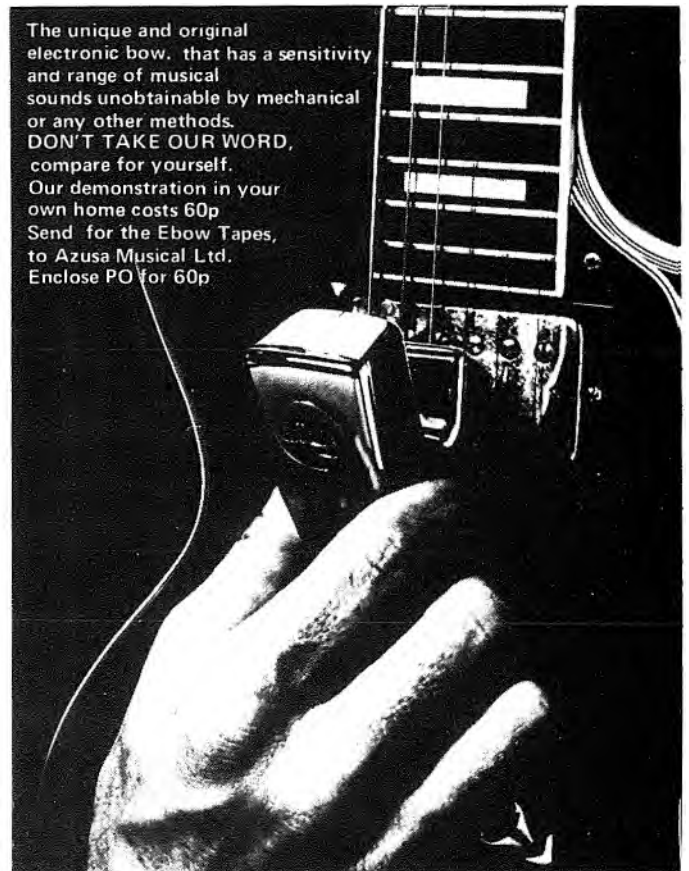
**MICKEY BAKER:**  
Blues And Jazz Guitar  
SNKF 127

JERRY GARCIA - GRATEFUL DEAD FRANK ZAPPA LOWELL GEORGE - LITTLE FEAST SPIRIT HOT TUNA YES PETER TOWNSEND - THE WHO WAR CHEAP TRICKS JEFF BAXTER - DOOBIE BROTHERS

No wheels, no springs,  
no screws, no string  
**The Ebow**  
is pure and simple



The unique and original electronic bow, that has a sensitivity and range of musical sounds unobtainable by mechanical or any other methods. **DON'T TAKE OUR WORD, compare for yourself.** Our demonstration in your own home costs 60p. Send for the Ebow Tapes, to Azusa Musical Ltd. Enclose PO for 60p



The Ebow is a product of Heat Sound Products, Los Angeles California, USA and is distributed exclusively in the UK by Azusa Musical Ltd and throughout Europe by Ebow (Europe) of PO Box 118, 30 Oldgate Huddersfield, W. Yorks England. Tel 0484 26657

JIMMY SPHEERIS BAND ELO DWIGHT TWILLY BAND PHIL EVERLY JOSE FELICIANO STEVE CROPPER GREG PORRE EDDIE HARRIS CALEB QUAY RONNIE MONTROSE STARZ FLEETWOOD MAC BOSTON BEE BOP DELUXE ETHOS (ARDOUR) THE HOYT AXTON BAND DANNY KOOCH - JAMES TAYLOR BAND GENESIS LYNYRD SKYNYRD BRAZIL '77

JACKSON BROWN LA SENE SAMMY HAGAR THE CLOWNS TOM PETTY & THE HEARTBREAKERS ROLLING STONES ROD STEWART BAND

# PLAYING

## JIM SULLIVAN: Electric Guitar

In this set of exercises I have based two solo's on a theme written by Brian Smith. You will find within the structure of the two solos bits and pieces of all the exercises we have dealt with in the last few editions.

I would like you to analyse the two solo's for yourselves and if needed, to rearrange the fingering and positions of the solo's.

The idea for this exercise is for you to record the chords (in tempo of course) on tape and to play along with them. If you have a friend to play along with all the better. Take turns in soloing once you have learned the solo's to a reasonable degree forget them and create your own solos good practising and good luck.

Chords: Cmin, Cmin, Fmin, Fmin

MELODY

SOLO 1

SOLO 2

Detailed description: This system contains the first four measures of the exercise. The melody line is in the treble clef with a key signature of two flats. The two solo lines are in the treble clef. Chord changes are indicated above the staff: Cmin, Cmin, Fmin, and Fmin. Fingering numbers (1-4) are written below the notes in the solo lines.

Chords: Dmin7b9, G7, Cmin, Cmin

MELODY

SOLO 1

SOLO 2

Detailed description: This system contains measures 5-8. Chord changes are indicated above the staff: Dmin7b9, G7, Cmin, and Cmin. Fingering numbers are written below the notes in the solo lines.

Chords: E7min7, A7, D7min7, D7min7

MELODY

SOLO 1

SOLO 2

Detailed description: This system contains measures 9-12. Chord changes are indicated above the staff: E7min7, A7, D7min7, and D7min7. Fingering numbers are written below the notes in the solo lines.

Chords: Dmin7b9, G7, Cmin, Cmin

MELODY

SOLO 1

SOLO 2

End Solo 1, Start Solo 1, End Solo 2, Start Solo 2

Detailed description: This system contains measures 13-16. Chord changes are indicated above the staff: Dmin7b9, G7, Cmin, and Cmin. Fingering numbers are written below the notes in the solo lines. Markers 'End Solo 1', 'Start Solo 1', 'End Solo 2', and 'Start Solo 2' are placed above the solo lines to indicate the beginning and end of the solo sections.

# PLAYING

Tom Rodford: Bass

## Fretless Bass

The biggest single factor in the advancement and increase in stature of the bass guitar in recent years has, in my opinion, been the incredible explosion of interest and exponents of, the instrument in its fretless form. The amount of time taken to reach this stage, which always seemed the ideal zenith of its evolution, has been a mystery to me.

When Fender built and marketed the "Precision bass guitar", it was designed to allow the musician to play with "precision", hence frets. As I discussed at length in my first article, this is first innovation, identified the instrument as a "bass *Guitar*" as opposed to "electric bass". The revolutionary sound produced and the approach to playing it made an enormous contribution to the development and epidemic popularity of Rock and Roll as a new music and art form, in its embryonic stage, in the early fifties.

But, to me, the fretless bass guitar was always an inevitable development in not suggesting that the fretted instrument should one day be obsolete, far from it. In the hands of Stanley Clarke and Tim Lamer, the fretted bass guitar has limitless and mind-boggling levels of expression open to it.

The physical and mental approach to the technique involved in exploiting these extremely individual and permanent features are very different from those employed on a fretless.

Bill Wyman's home-made short scale bass, was the first fretless I remember hearing, and his extremely distinctive style and "swooping" lines had a great deal to do with the raw excitement created by the earliest Stones performances and records. I never understood why this form of bass playing (and thinking) wasn't taken up more widely through R&B and blues music in general, especially in its "boom" period of the middle Sixties. The technique and obvious musical thought relationship between fretless bass playing and slide blues wailing guitar, has never been fully exploited for my money.

Around 1972, I had the privilege of making an album with American singer-guitarist Michael Fennelly, who is an extremely fine slide guitar exponent. Although I'd had a fretless Precision since 1970, I hadn't until then, had the opportunity of exploring its possibilities fully. I subsequently had a most enjoyable and rewarding time swooping around and riffing along with the slide guitar lines.

The first legitimate production-built fretless I encountered was an Ampeg, used by Aretha Franklin's bassist, on her first concerts in this country, when I played in the support band. This was in 1968 and he was playing it within a Funky, R&B and jazz framework and it is from this musical area, that it seems to have broken through most strongly, via people like Jaco Pastorius and Percy Jones. This experience prompted me to experi-

ment in a manner which I feel could now provide useful advice to bassists considering the transition to the fretless instrument.

One of the main technique differences is obviously in the basic "pitching" of notes. Whereas, on a fretted bass you have the distance between each strip of fret wire for your chosen note, on a fretless fingerboard you have to place your finger on the exact imaginary line, where the fret would be, to pitch the note correctly. Any slight deviation deems the note quite appreciably sharp or flat. For this reason, I didn't use my fretless a great deal whilst with Argent, as my role in the band demanded a lot of speed and accuracy of complicated and angular phrasing on bass, whilst singing often quite involved and unrelated vocal phrases against the bass line.

Frets were imperative to my correct execution of the arrangement and these considerations should be contemplated if you're thinking of taking up fretless bass.

My fretless is in fact Chris White's old Fender Precision which was used on many of the Zombies' hits in the Sixties. I had the frets removed in 1970 and the remaining grooves give me almost total visual accuracy. I didn't even bother to fill the grooves in and this doesn't cause any appreciable interruption in the smoothness of the sound of finger vibrato or glissandos.

Many others have since carried out this simple modi-

fication, Jaco Pastorius being the most obvious example, and most of them have had the fingerboards beautifully finished and smoothed off with the fret markings filled in, but still plainly visible. But the point I am making is that it's easy to experiment before you decide to get into it at all, or spend unnecessary money on a "legitimate" fretless, by removing the frets on your existing instrument. If you don't trust yourself to do it, it won't cost much to have it done professionally. This way, you leave the options open as to (a) whether this style of playing suits you, or the music you're into, (b) if the bass you already possess is adequate in this new form, with the added advantage of fret markings for accuracy. You'll probably find it advisable to lower the action slightly, by at least as much as the fret-wire depth you have just removed. If you suddenly find the pick-ups feeding back when turned full up, remove any hand rest/pick-up guard arrangement bridging the strings you may have, this should cure it. I'm not sure why, but this happened to me with my Precision and, by trial and error, I stumbled on this cure.

The sound and feel of a fretless neck is totally different to a fretted example, even of the same model, as is the case with my two Precisions. The note produced has much more warmth and sustain, due to the strings' complete contact with the fingerboard, causing the whole instrument to vibrate in much the same way as an acoustic bass.



The thickness and density of the wood used in the construction of the bass has a marked bearing on the response and can, in expert hands, sound very much like a cello, even acoustically. As I mentioned before, pitching accurately takes more practice, and your development of finger vibrato is important in exploiting the instrument fully. You can make any note "sing" most pleasingly, by adopting the vibrato technique of double bassists or any correctly-trained strings player, with the fingertip "rolled" on its position, with a left-right wrist action producing a vibrato of the speed of your choice.

This differs radically from the method developed by blues guitarists, which is to "pull" the string physically "across" the fingerboard,

using the fretwire as a guide. This is of course, more difficult for bassists although I've witnessed Tim Bogert "pull" a note on a fretted Precision almost two tones higher!

An interesting development by Rotosound allows this "pulled vibrato" technique to be adopted more readily by bass guitarists. Their Super Bass strings are designed to allow the extra elasticity required, by stopping the windings of the string about 1/8" before the bridge, allowing the central core only to pass over the bridge. This makes a big difference to the "bending" and "pulled vibrato" aspects of bass technique on a fretted instrument whereas, on a fretless, to bend, you simply "slide" your finger up or down as required. I use these strings on my fretless giving,

for me the best of both techniques.

#### Competition

This month's competition is again comprised of two simple riffs from rock and roll hits. The first was a big chart success for a British group in the Sixties and you'll notice its constructed around a G7 SUS4 chord arpeggio. In this case, name the song and the group in question.

The second riff is taken from an all-time rock 'n' roll classic, based around an E7 arpeggio. Name the song and the artist to *first* record it.

The response to last month's competition was great with entries from Europe as well as the U.K. Most of you got it right and don't forget the answers given here are to November's competition, as the compil-

ation and printing schedule of this magazine requires me to write these articles, one month in advance. The answers were:- (1) Song - "Sunshine of your love" (2) Group - Cream (3) members - Eric Clapton, Jack Bruce, Ginger Baker. The six winning entries were:- Nigel Carey from Dublin, Clive Edmundson from Southsea Hants, Harald Sicheritz from Vienna Austria, Peter Bedford at "The London School of Economics", D. Bruce from Carlisle, and D. Ohara from Otley, West Yorkshire.

They should have received their strings by now, and the prize is a set of Rotosound bass strings of the winners choice, to the first six correct entries drawn out of hat. If you enter, please stipulate your choice of strings i.e. Long, medium, or short scale, - Flat, tape or roundwound.

G7 SUS4

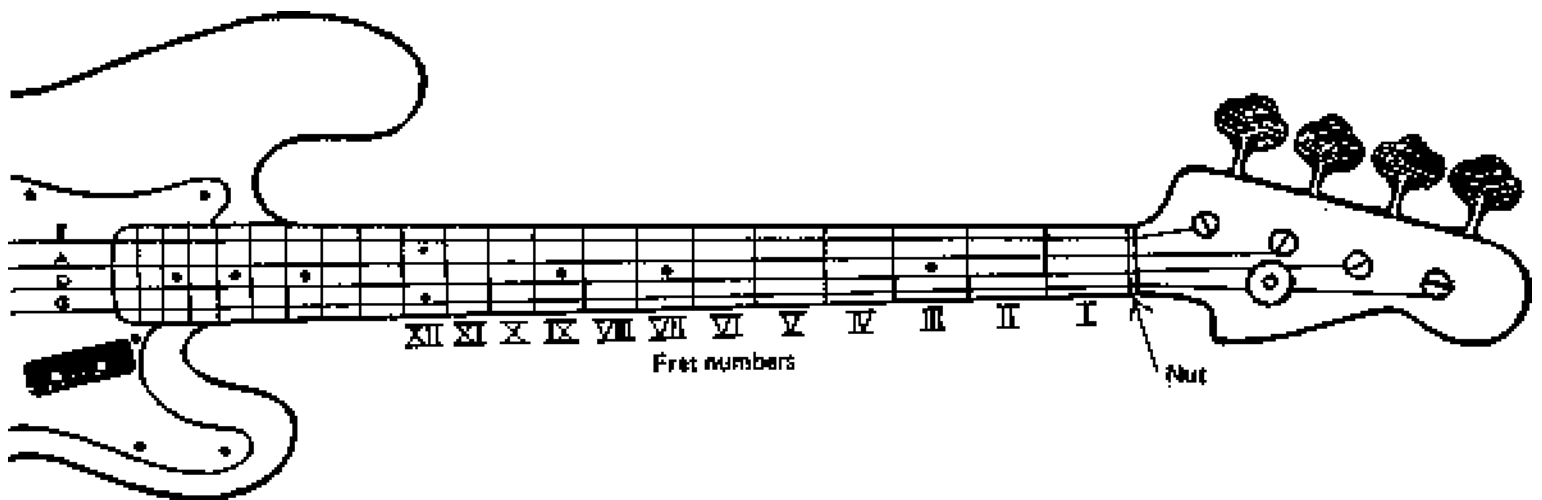
ARPEGGIO

COMP RIFF NO 1

E7

ARPEGGIO

COMP RIFF NO 2



# The Ultimate™



The Hamer guitar is handbuilt to exacting specifications. The body is one piece of select British Honduras mahogany accented by a one piece curly maple overlay which is trimmed with creme binding. The neck is carved from the same choice mahogany and is reinforced with a fully adjustable truss rod. The fingerboard is constructed of rosewood and is offered in two different inlay patterns "dot" and "crown". 22 wide arched frets are used on a 24-3/4" scale.

A fully adjustable, 6 ounce, solid brass bridge provides rock-stable intonation as well as endless sustain.

The electronics consist of two specially designed Di Marzio pickups, a three position toggle switch, two volume and one master tone controls. The instrument is hand finished in a striking cherry sunburst using only natural lacquers.

We believe that by using only the finest materials and construction methods we have constructed an instrument that is special for the serious musician. It is set apart from mass produced instruments in design as well as construction. It feels right, it balances well both physically and visually. The components, neck and body design give the guitar a sound and playability that is unapproachable. The Hamer guitar does not rely on its name or past triumphs for its appeal. With each instrument comes our pride of workmanship and our attention to detail. These guitars are not built to schedules nor are they marketing compromises. They are simply the finest instruments we can build.

## Hamer Sunburst™

Suggested retail price:  
Crown Inlay w/binding  
£642.95 (ex works Rotterdam)

European Agent:  
Electron

16 Dwarsbleekstraat: 3134 EC  
Vlaardingen  
The Netherlands

Phone 010-31-10-345370

# The Crumar Organizer 2

## The Ultimate Portable 'On the Road' Organ



- \* 61 notes Upper Manual, 49 notes Lower Manual
- \* 4 "Piano" effects available on both manuals
- \* Full range of 9 Flute Harmonics on Upper Manual, 6 Flute Harmonics on Lower Manual, controllable by Drawbars
- \* 4 footages of independent Percussion + the "Tone Wheel" transient effect "PIK"
- \* Vibrato On/Off - Slow/Fast
- \* 18 notes Pedal Board operating on 3 footages (16' - 8' - 51/3')
- \* Instant selections "PRE-SETS"
- \* Independent Volume Control Drawbar for each function of the organ
- \* Lighting Push-Buttons/Controls on the front panel
- \* "NERVE CENTRE 15" (Optional)

**CRUMAR**

Distributed in England by:  
Trevor Daniels & Company, 65 Langdale Road, Dunstable,  
Beds. LU6 3BX. Tel: 0582 600053.  
For full colour brochure on this magnificent Organ, either  
telephone us or send the coupon.

Please rush me the latest  
CRUMAR brochure  
illustrating the CRUMAR  
Organizer 2.

Name \_\_\_\_\_

Address \_\_\_\_\_

# PLAYING

## ANDREW McCULLOCH: Drums

Drum Solos have different reactions on different people — the “idiot dancer” becomes an epileptic, rushing the stage, miming every movement until he either falls into the orchestra pit or is manhandled away by the road managers. The fans follow the event with due enthusiasm cheering their hero to new heights. The journalist, on the other hand, looks to the heavens, turns and plods back to the bar. He’s seen it all before. The drummer in the audience breaks off in mid-sentence, adopts a glassy stare as he digests the performance — he’d quite like to see him drop a stick . . .

The Drum Solo can be approached from different directions; the inspirational drummer plans nothing, he just launches into his solo without a clue as to what he’s going to play. Trusting in his own ability to pull something out of the

bag, he rides along on the excitement of the moment, pushing himself to the limits. There is, however, an inherent weakness in this system. If you have just travelled 500 miles with a shattered windscreen; got turned out of the hotel-restaurant for not wearing a tie; split your snare skin on the first number; and you can feel a beautiful blister coming up on your thumb, the last thing in the world you can muster is inspiration. With a bit of luck you might just manage a sense of humour. I speak from experience on this one. Though I must say that the experience of having played a piece that has stretched me to the limits of my ability and will never be repeated exactly the same, has a certain magic about it.

There is the drummer who lives less dangerously and has a higher percentage of good nights. He spends a lot of time

working on his solo as if it were a masterpiece, studying each stroke and building up the picture with new patterns until he can play it in his sleep. His performance is always good, regardless of the circumstances. He’s also got the advantage of being able to update his solo — developing parts that go down well and phasing out others that don’t, or bringing out new patterns and working out others that don’t, or bringing in new patterns and working them into the piece.

Over the years, I’ve found that a combination of the two systems is the most successful, having a basic outline to work to, but leaving a lot of scope to expand on the night.

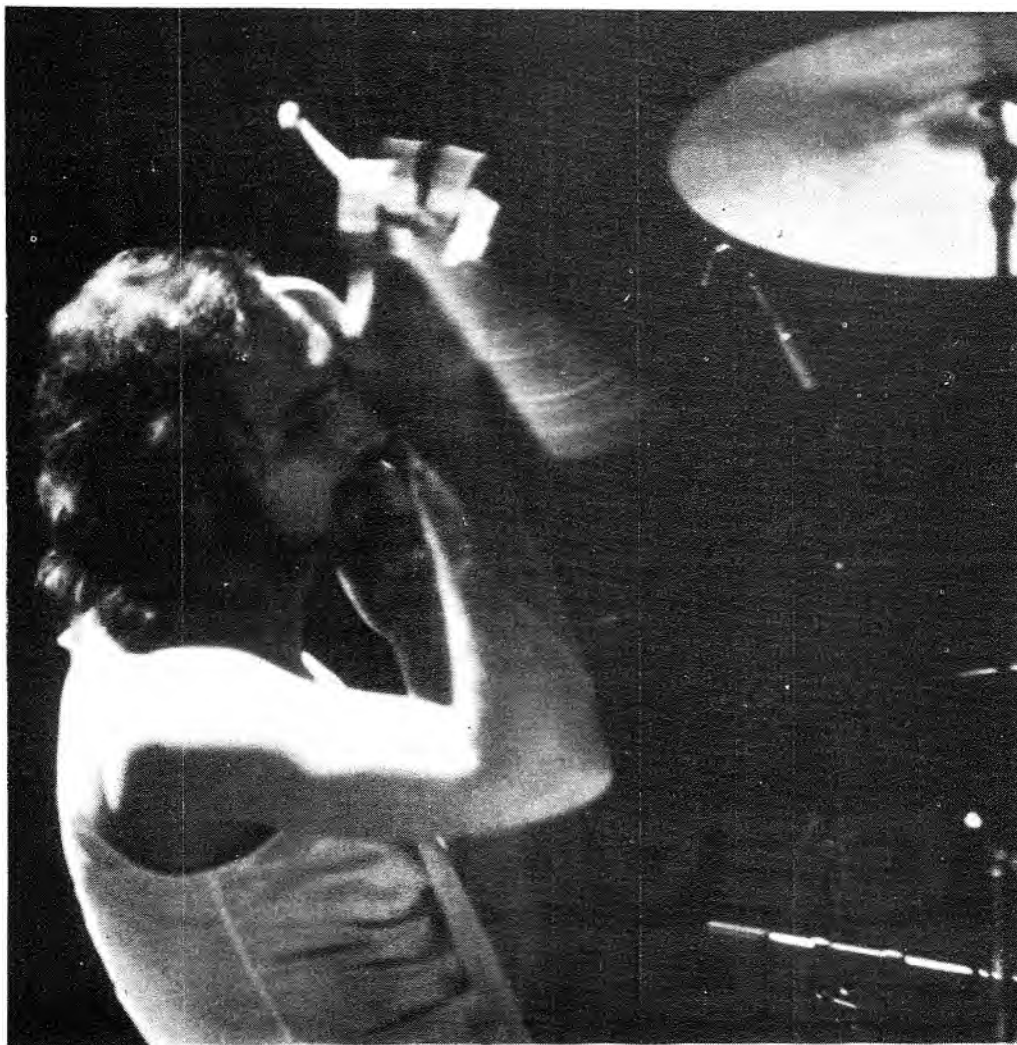
Bringing a drum solo into an act takes a bit of planning — firstly, it’s no good bringing it in within the first two numbers, but better to place it where the

act has picked up some momentum — usually most effective towards the last three. Don’t set yourself the task of starting a solo directly after a marathon piece that has left you gasping; place the solo so that you have time to gather yourself. Resist the temptation to powerhouse into the solo with all guns blazing — you’ll either have to keep it up for six or seven minutes, or you’ll find you’ve played your best card first and left yourself an anticlimax to finish on. Decide how much time you want to play for and pace yourself accordingly. I have seen many a drummer explode into his solo, thrashing his limbs about to a tremendous crescendo all within the space of about 30 seconds and then watch him glancing nervously about for the rest of the band who are discussing the events of the evening back in the dressing room, and who continue to do so while their drummer slowly disintegrates.

When you watch the “greats”, like Buddy Rich and Billy Cobham, you can feel a pulse running their work. They can halve or double the time, twist it or stand it on its head — but you’ll always feel the pulse keeping one idea flowing to the next. It’s hard to describe but, all too often, good drummers can become fragmented in their playing, jumping from one idea to the next — all good, but not hanging together, they lose their way and it becomes self-indulgent. This is when they lose the audience, who are impressed but not moved.

The secret of a good solo is to, first of all, capture the audience’s attention and hold it — first by laying down a simple structure that they can get hold of, then draw them along, bringing in all the variations and complexities that can take your solo to a peak — all the time being constantly aware of the overall shape of what you’re doing.

Don’t be confined to the basic sound of the kit, try using some effects on your sound like phasing, reverb, or even play some games with an “Echoplex”. Bring a wide range of sounds into your act — like gongs, bells, blocks, roto-toms, shakers and endless others. The audience hasn’t come to look at a drum kit — they’ve come to see you play, so open up and let your personality get across.



# **Rockex 78**

An Exhibition sponsored by  
**Woodroffes Ltd., and Drumland Ltd.**

## **Special Offers**

There will be many special offers on equipment ordered from the exhibition, including **10%** off Fender guitars, **20%** off Fender amplifiers, special prices on keyboards.

**Huge discounts on many items.**

Example—Fender Rhodes 73 note stage piano  
£544 + VAT (Limited quantity only).

Special offers on electro-harmonix pedals, which will be on display at Woodroffes Musical Instruments opposite the Top Rank Suite during normal shop hours.

# Woodroffe's



GUINN EDWARDS

# DRUMLAND

**PUNK  
ROCK**  
10p PER STICK



## Rockex 78

8th/9th/10th JANUARY 1978

**Admission one day**

**25p payable at the door.**

**Admission three day pass**

**obtainable in advance only 50p plus free badge.**

Please send remittance with  
stamped addressed envelope to

**Woodroffes**

**(Musical Instruments) Limited,**

**5/8a Dale End,**

**Birmingham B4 7LN.**



# Rockex 78

## **Theatre Projects—**

Will be showing Altec—Lansing speaker systems and their own range of group equipment.

## **Fletcher Coppock and Newman Ltd.—**

Are exhibiting Hagstrum guitars, plus a full range of equipment.

## **Kemble (Organ Sales) Ltd.—**

A complete range of Yamaha professional equipment including the new S.G. range of guitars. Electric pianos, the new range of polyphonic synthesisers, drums, back line equipment and P.A. will also be on show.

## **Custom Sound Ltd.—**

A complete range of group amplification equipment will be on show.

## **Rose Morris and Co. Ltd.—**

Ludwig drums, Korg synthesisers, Travis-Beam guitars, Ovation guitars and Marshall group amplification will all be on show.

## **Strings and Things—**

Music Man amplification, guitars, and a very comprehensive range of accessories will be shown.

## **CBS/Arbiter—**

Will be showing Fender guitars and amplification, Rhodes pianos, Rogers drums, Auto Tune drums, Paiste cymbals and gongs.

## **Cleartone Musical Instruments Ltd.—**

C.M.I. guitars and amplification plus a range of accessories will be on show.

## **Brodr-Jorgensen—**

The complete range of Roland synthesisers, electric pianos, amplification, effects units and Kramer guitars will be exhibited.

## **Hayden Laboratories Ltd.—**

Sennheiser mikes and a range of quality studio equipment will be on display.

## **Supremo Drum Company**

Slingerland Drums and a range of percussion.

## **Premier Drum Co. Ltd.—**

Are showing their full range of percussion.

## **James T. Coppock (Leeds) Ltd.—**

Will be exhibiting a complete range of Antoria guitars, a range of accessories and effects pedals and Tama guitars.

## **M.M. Electronics—**

Will have on show a complete range of M.M. mixers, power amplifiers, group P.A. equipment plus Redmere and Intermusik amplifiers.

## **M. Hohner Ltd.—**

Hohner keyboards and Korg keyboards will be on show. Plus a range of accessories and Sonor drums.

## **P.K.P.—**

Cat synthesisers, the new synthesiser and a new larger synthesiser (details of which will be announced later) will all be exhibited.

## **Peavey Electronics (U.K.) Ltd.—**

Will be showing a complete range of back line amplification and P.A. equipment and A.R.P. synthesisers.

## **Cerwin Vega—**

Featured on their stand will be a complete 10,000 watt P.A. system and a very comprehensive range of highly professional smaller P.A. systems and power amps. It is hoped that the new Cerwin Vega bass guitar rig will be given its U.K. launch at the exhibition.

## **Mega—**

The U.K. launch of this very fine professional range of P.A. speaker cabinets will be made at the exhibition. Also featured will be several brand new designs and innovations.

## **Carlsbro—**

A complete range of amplification P.A. equipment and effect pedals.

Woodroffes Ltd.,

5/8a Dale End, Birmingham B4 7LN. Registered in England No. 875971.



# BEVERLEY ON THE MARCH...

Drummers are very conservative people. They're slow to change any fixed opinions they may hold and, generally, they resist change. Perhaps it is for this reason that some of the new and very exciting developments in percussion in the last few years have gone down like a lead balloon. Equally, a winner usually stays a winner. Beverley, one of the few English made-drum brands, is getting the best of both worlds.

Because Beverley has "evolved" rather than rebelled, the new range of drums recently introduced has been accepted by the drumming fraternity with increased enthusiasm rather than rejected in suspicion, as is all too often the case with new drum products.

Beverley have enjoyed a favourite position with British drummers for many decades — since 1904 to be precise — and in the last 20 years the marque has gone from strength to strength with some important developments in drum design originating from Beverley.

The drums are built in Leicester, centre of the industrial midlands and the traditional techniques of hand building are exclusively employed on the production lines.

Introduced only in the last few months, the new range of drums incorporates some radically different hardware that pushes Beverley "up a league" and forces it to compete with some of the best American and Japanese products. Peculiarly the prices have not risen by quite the same extent.

Flagship of the new range is the Beverley 8005 which Bob Henrit reviewed in the November 1977 (UK date) issue of *International Musician*.

Here's what he had to say: "These new Beverley Drums look good, clean and unfussy and with their updated badges are a great improvement. The colours supplied (with the exception of burnished pewter) are all very serviceable and professional-looking; black, white, red, blue or yellow solid plastics now being available also.

"I liked very much the nickel-plated stands which gave a no-nonsense image to the set yet still looked attractive. Here's a drum kit which has always sold steadily in a "unsung hero" type of way. Its image has now been updated and, given the present vogue for single-headed drums, could be at the right price and with the proper endorsements and exposure make mince meat of some of its overseas and even home-based competition".

From that opinion it is clear that the new drums are pretty impressive. But making drums is a very time consuming and expensive operation. The new drums — despite incorporating many single headed shells — are no exception.

In the last few years the price of wood, which is still the most popular basic raw material for drums, has gone through the roof. All the beech and mahogany used in Beverley drums has to be inspected and selected and a considerable amount of wastage occurs before sufficient timber is found to make one complete kit.

Like most drum factories in the world Beverley use a combination of heat and pressure to form the shells after the laminations that build up the shell wall have been made. Once shaped and glued, the shells have all the fitting holes drilled and the surfaces smoothed down to accept the exterior finish. The fittings are all put on by hand and every mounting point is checked individually to ensure strong and safe supports.

Depending on the type of finish planned, the shells are either sprayed in the spraying booth, or have plastic laminates attached by glue. This is done before the final fitting of nut boxes, spur mountings and so on.

Naturally the metal snares are not made in this way. The development of

the Beverley snare has been particularly interesting. Today the snares are usually all metal and SEAMLESS. Wooden seamless snares are available to order, but nearly all rock drummers today prefer metal shells for extra penetration power.

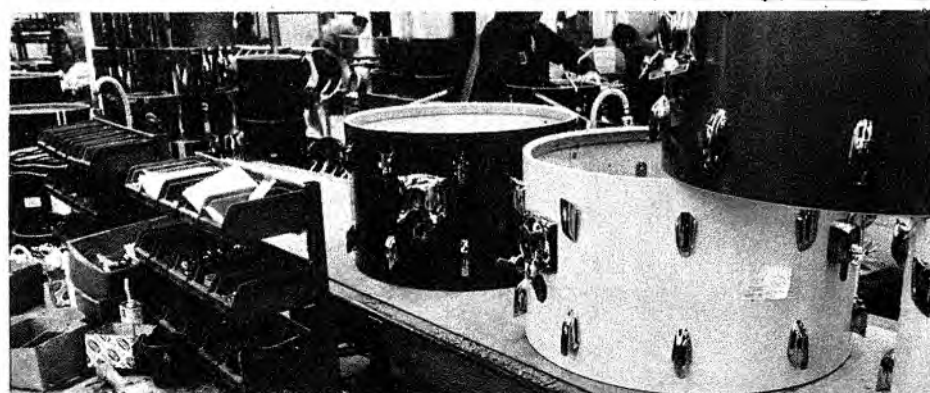
Drummers have a choice of either 5½" deep shells or 6½" deep shells and all snares are of the ten-lug variety.

Alongside the new 8005 range, the new range of Concert Tom-Toms represents the very latest innovations in percussion. This family of drums are mounted on tripod stands and sizes available are: 8", 10", 12", 13", 14", 15", 16", and 18".

Because Beverley — and their distributors Boosey and Hawkes Ltd. — are anxious that players should have as much flexibility as possible in choosing the ideal kit set up, two different types of drum stand are available. The choice is either "Executive" or "Professional" model stands. The "Executive" stands have solid flat metal tripod bases whilst the "Professional" models are tripod too but more substantial made from U-section steel. In the new range of drums Beverley have pulled off a unique balancing act. They've created drums exciting enough for the seasoned professional whilst ensuring the prices remain within reach of most musicians.



*Beverley bass drums, with fittings, awaiting heads*



*Fitting nut-boxes by hand on the Beverley Drums assembly line in the Leicester factory*

**SNARESSNAPPING!  
CYMBALSCRASHING!  
BASSDRUMBOOMING!  
TOMTOMSTALKING!**



**SOUNDS GREAT IN '78**

# **BEVERLEY**

**NEW SERIES 8000**



8005



8004



8003



8002



8001

Colour brochure and details from:—  
BOOSEY & HAWKES (Musical Instruments) LTD Deansbrook Road Edgware Middlesex HA8 9BB

# D'Addario Half Round<sup>®</sup> Guitar Strings...

## the sound of a new era.



At last there's a guitar string that incorporates the strong points of both round wound and flat wound strings — the Half Round Guitar String.

Half Rounds are smooth strings that produce crisp, accurate sound and exceptional intonation no matter what type of music you play. And that's due to



the way they're made.

Half Rounds begin like our round wounds with pure nickel windings and hexagonal cores. Then we grind, polish and hand buff each string until it's perfectly smooth. The end product is a highly flexible string that vibrates freely with all natural overtones — because it's still round wound on the inside. The overly bright round wound sound is subdued. Half Rounds give you fingering ease without contributing to premature fret wear. And they won't play out of tune up the guitar neck like flatwounds.

The idea of Half Rounds became a reality in 1976 when we introduced Half Round Bass Strings, the "third kind of bass string." Now you can give your guitar the sound of a new era. Try a set of D'Addario Half Round Guitar Strings. Available in six gauges from your local music dealer.

# D'Addario

Lindenhurst, New York 11757 U.S.A.

Patent Pending on Half Round™ string construction.

# WILLIAMS

STUDIO INSTRUMENT RENTALS LTD.

- **MUSICAL EQUIPMENT FOR YOUR RECORDING SESSION**
- **DEMONSTRATION ROOM FREE OF CHARGE - BY APPOINTMENT**
- **KEYBOARD SPECIALISTS**
- **REPAIRS & MODIFICATIONS TO MUSICAL EQUIPMENT**
- **SPEAKER RECONING**

**TELEPHONE: - 01-459-7294 5**  
**2, CHURCHILL ROAD**  
**(OFF WILLESDEN HIGH ROAD)**  
**LONDON N.W.2.**

# JULIANS

Behind the facade of an old dairy in Willesden lies Julians instrument rentals. The setting may sound strange, but one look inside Julians premises in Churchill Road, near Willesden High Road shows that this company take the hire business seriously.

Shirley Leigh, who runs the company, started the whole operation with just one Baldwin harpsichord.

The firm began in 1971 when Shirley's late husband, Julian, a jazz pianist, bought the harpsichord. It seemed that the instruments were in short supply, and before very long there was a steady stream of people wanting to hire it.

Julian found that there was a considerable demand for hire equipment and saw ways in which the service could be improved. "He found that the state of the equipment people were playing was in such a bad way, he did not know why musicians were standing for it", Shirley said.

"With our equipment, they were getting pianos which they could play, and were in tune".

Over the next three years the company gradually expanded, but tragedy struck when Julian died in 1974. Shirley was faced with the prospect of selling up, or taking the whole business on herself. She elected to carry on, and with a team of workers behind her not only kept the company going, but developed and expanded it. Three years ago Shirley bought a house in Cricklewood which was the base of their operations.

Over the years, the keyboard hire expanded to cover amplification, instruments and repairs until it became necessary to find even bigger premises. This proved a headache, because Shirley knew exactly what she wanted, and scoured London to find it.

Eventually she discovered an old dairy in Willesden which had also been used as a shop fitters. Although the building was dilapidated, and she had been warned not to touch it, Shirley went ahead with her plan.

The past year has been spent in completely refitting the inside of the premises. One of the features is the demonstration room, which is crammed full of keyboards and synthesizers.

The purpose of this room is to allow musicians to work for lengthy periods with a particular instrument which might be very complex. The service is free, and the musicians can stay as long as they like, but a phone call to Shirley is necessary in advance to clear everything.

Julians hire their equipment mainly to studios, and cover most requirements, although as yet they do not deal in sound systems and percussion.

The range of instruments and amplifiers is impressive including pianos, organs, harpsichords, celestes, synthesizers a variety of guitars and effects units which all carry top brand names.

Julians prides itself on its professional service and ability to keep pace with the latest developments in the hire field.

"We are constantly adding to our stock. If we find that we are getting a number of inquiries for a particular item, then we will get it", Shirley said.

"We also find musicians coming to us who have perhaps seen something or heard about something new asking us about it. This keeps us informed about just what is going on, particularly when they have seen something in America which isn't available here yet".

A typical example of this approach is their investment in a micro composer and a drum synthesizer, which are believed to be the only ones for hire in London.

Every piece of equipment is regularly tested, and great care is taken by the staff to ensure that it is correctly set up

and in good working order when it is on hire. In fact, Shirley insists that people who deliver the equipment know something about it and are able to carry out basic on-the-spot repairs.

She is also aware of the importance of having a good working team, and takes great pains to employ staff who can fit in, with the company and meet with its requirements.

Gordon Graham is her right hand man who has been with the company for four years. He takes care of the general management of the place, assists people with demonstrations and deals with the needs of the customers.

Rik Picton is the chief on the road, making sure that the correct equipment is delivered to the right place at the right time in the two big Mercedes trucks. Danny Webb is the engineer who checks out all the gear and deals with repairs, while Linda Mitchell is the type of secretary that no good company could exist without. Shirley's daughter, Natasha, will also be coming into the business to ensure the family connection is maintained.

Developments at Julians include a retail outlet for instruments and amplifiers which is planned for the Churchill Road premises in early 1978.



Julians staff (left to right) Rik Picton, Natasha Leigh, Linda Mitchell, Tod Fenn, Gordon Graham, Mrs. Shirley Leigh (sitting) and Danny Webb (front).

# 'I SUGGEST YOU RENT-A-ROLAND!'



Shirley Leigh — Julians Hire

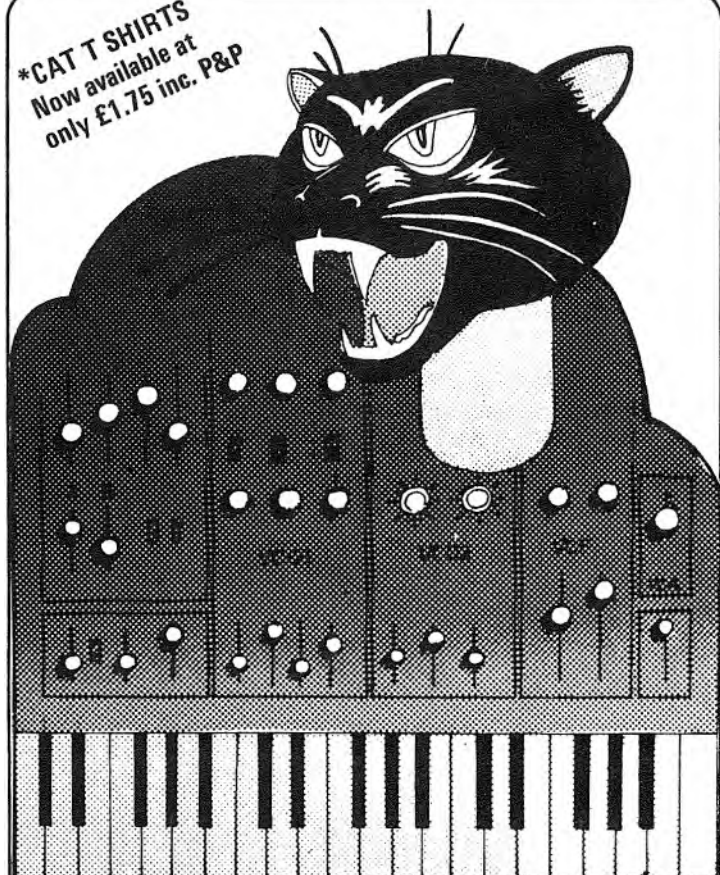
"At Julian's we only offer the very best instruments for hire. Over the years we've found Roland products to be unbeatable they're totally reliable. In our business we can't afford for a synthesizer or an electronic piano to break down during a recording session. If it did it would harm our reputation. Roland has done nothing but enhance our reputation. The products perform perfectly on session after session and if any of our customers haven't yet learned about the good sounds and utter dependability of Roland — I Suggest You Rent-A-Roland".



Contact your Roland dealer now or write to  
Brodr Jorgensen UK Ltd.  
Great West Trading Estate, 983 Great West Road, Brentford, Middx.  
Tel: 01-568 4578 Telex: 888941 Chamcom London



\*CAT T SHIRTS  
Now available at  
only £1.75 inc. P&P



# the CAT

**THE £1000 SYNTH PRICED  
AT ONLY £645!**

This brand new American Synthesizer has already been given the seal of approval by the top professionals – musicians like Rod Argent, David Bedford and Dave Greenslade – recording studios like Morgan Studios in London and countless small bands and keyboard players around the Country. Track down a CAT and listen to its incredible sounds today!

**Dealers:**

Chase Musicians NW1/City Electronics Wembley/Macaris WC2/  
Rose Morris Retail W1/Jerry Allen Dunstable/Andertons Guildford/  
Chingford Group Gear/Hammonds of Watford/Keyboard Harmony  
Redhill/Rumbelows Reading/Leisure Music Hastings/Organ  
Keyboards Torquay/Woodroffes Birmingham/Hessy's Liverpool/  
Kitchens Leeds/Music Ground Doncaster/Rock City Newcastle/  
Whites Sunderland/Jerry Allen Glasgow/Stage Music, Bridge of  
Allen/Roundhouse Music Store NW1/Telecomms Portsmouth/  
Rod Argent's Keyboards WC2. Charlesfield Audio, Rugby/  
Free 'n Easy, Hemel Hempstead/Coast Music, Bournemouth.

**PKP PROFESSIONAL KEYBOARD PRODUCTS**  
1 Clareville Street London SW7 England 01-427 4511

TO **PKP** PLEASE SEND ME  
FULL DETAILS ABOUT THE CAT  
AND THE NAME OF MY CAT DEALER

NAME .....

ADDRESS .....

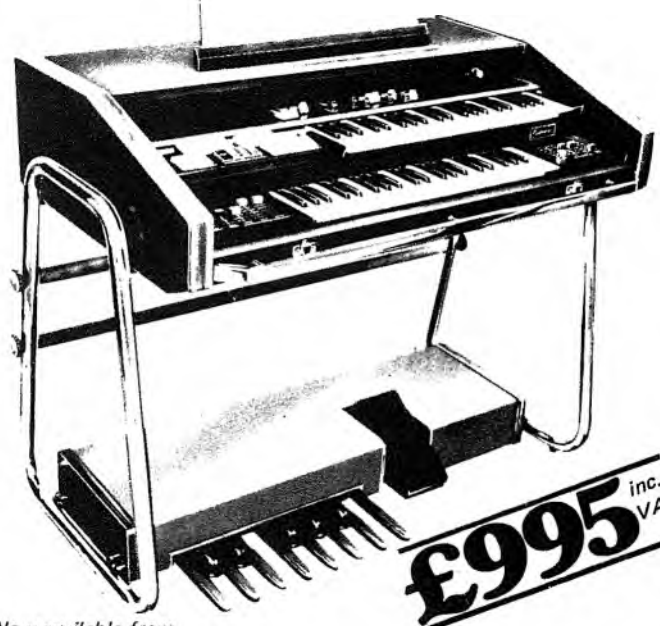
.....Phone.....

Please send ..... CAT T Shirts at £1.75  
I enclose Cheque/P.O. for £.....

Size: Small ..... Medium ..... Large.....

IM-JAN

# THE NEW Cavendish Portable II



**£995** inc. VAT

Now available from  
**CHINGFORD**  
ORGAN STUDIOS LTD



THE ORIGINAL IS STILL THE GREATEST

## acoustic

IS AVAILABLE DIRECT TO YOU AT  
STATESIDE PRICES  
FROM

Kingfisher Music Company, 20 Kings Road,  
Fleet, Hampshire, England. (02514) 21210

MAIL ORDER AND EXPORT NO PROBLEM  
10% Dep. H.P./PX/Access/Barclaycard/Money

IN THE HEART OF  
CARLSBRO COUNTRY...

THE  
FLANGER



Unlike phasing, flanging provides beautiful continuous series of harmonically related frequency responses to give doppler, rotary, wind, ringing and modulation effects. Rotary controls are featured for speed, depth and Colour, plus an Invert switch, a unique phase-inversion selector.



CHINGFORD GROUP GEAR  
242 Chingford Mount Road, E4.  
01-524 1446

For

Marshall **MXR** **OVATION**

and an extensive range  
of other

**Rose-Morris**

Products go to

**CHINGFORD**  
ORGAN STUDIOS LTD

Group Gear  
242 Chingford Mount Rd.,  
London E4.  
Tel: 01-524 1446/7/8

**Rotosound**  
Wish every  
Success to  
Chingford  
Group  
Gear  
Centre



Congratulations from

**ELKA-ORLA**

to

**CHINGFORD ORGANS**  
*on extending and improving  
their group gear premises  
where a range of our  
organs are always on show.*

**ELKA-ORLA (U.K.) LTD**

19, Bluebridge Industrial Estate, Halstead, Essex.  
Telephone Halstead (07874) 5325

\*\*\*\*\*  
**CHINGFORD** GROUP GEAR

242 Chingford Mount Rd., London E4

**Guild**  
stockists



Free Guild Stickers



# CHINGFORD GROUP GEAR

Self-help is something to be admired. It's not that common in Britain in the Seventies, but in Chingford, in North East London the quality is alive and flourishing.

London musicians will be very familiar with a music store called Chingford Group Gear which is in Chingford Mount Road. It's been a popular visiting place for musicians who care about service for some years now, but if any of them have re-visited in the last few weeks, I'd bet they didn't recognise the place.

With just a little help from a firm of local builders, Chingford Area Manager Russ Cook and Store Manager Jim Holdsworth have re-designed the Group Gear shop and enlarged it to double its old size.

"It wasn't easy", said Chingford's overall boss Gene Ashworth the M.D. of the entire chain of Chingford Organ Studios and gear shops. "We've been considering expanding this shop for a couple of years because we felt that we needed to show more instruments and finally Russ and Jim got down to it and built many of the fittings themselves".

"Look at these racks for sheet music," said Chingford's General Manager, Gerry Haim (known to his friends as Genial Gerry). "The lads build them all themselves and put in all the guitar racks and the spotlighting. And they've done it better than professionals because they understand how a Group Gear shop should look".

Russ and Jim are modest about their achievements but it's obvious that they are proud of the new store.

"We've actually removed two small rooms that were at the back of the shop and knocked them into the main showroom area", Ross told me. "We had to get planning permission and put in RSJs to support the building, but it's all been worth it. It's really a fabulous shop now".

"But we kept open all the time it was going on", laughed Jim Holdsworth. "We had a huge sheet separating the rear part of the shop where the work was going on from the main showroom. When they were knocking down walls with the Kangol drills we couldn't even hear people trying out guitars at 100-watts!"

There really is a fabulous selection of musical equipment in the shop now. Because of the shop's close ties with the Chingford Organ Studios chain there is a heavy accent on portable keyboards and among the names prominently on display are Hammond, Welson, Farfisa, Elka and ARP and Cat synthesizers. Boss Gene Ashworth feels that the future for synthesizers isn't as good as most people are predicting:

"I think we've seen an end of the synthesizer boom", he told me. "People who wanted them have got them and I think sales of synths will now drop off generally. Obviously there will always be a demand but I think it's levelled off and I think it will show itself to be quite a small market".

Most guitar names are represented on the well stocked walls. The main feature in the store is Ibanez.

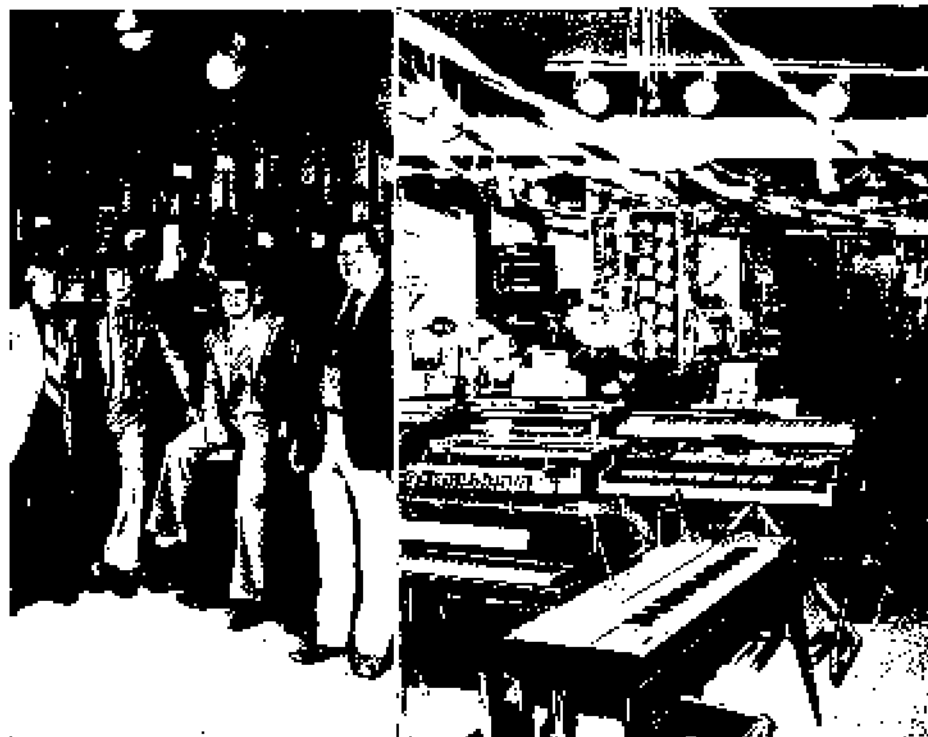
"They're fabulous guitars", Gene Ashworth enthused. "We stock all the well-known American models and I think Ibanez take some beating. Quite often a guitarist who comes into the shop has never tried an Ibanez and after ten minutes of playing he's sold".

Amplification is naturally an important part of the stock in the store. Here Carlsbro does exceptionally well and so does Marshall. Other amps available include Custom, and Vox.

Chingford consider service is a very important part of a good music store. In a large room right out back of the new super-store is the service centre. Here fully-trained personnel, including a specialised guitar repairer looks after all customer needs. Chingford pride themselves that no trouble is too great when a customer is involved and the only way to try that out is to visit the store.

If you're a keyboard player it's important to note that this store is THE centre for choosing a rotary tone cabinet. As well as being main agents for Hammond and Leslie, Chingford are also the importers and U.K. distributors of the fabulous Soltan tone cabinet. This unique keyboard amplification system comes from Germany and it is one of the very few rotary tone cabinets specifically designed for professional use.

The new store at Chingford is a gas. It's near London, but it's also easy to park. Well worth a visit.



Russ Cook, Jim Holdsworth, Gene Ashworth and Gerry Haim.

The much enlarged and redecorated interior of Chingford Group Gear.



**Pack  
Leader**

- ☆ Solid Rosewood or Walnut Construction
- ☆ Di-Marzio Pickups
- ☆ Unique Truss-rod design (P.A.F.)
- ☆ 24 Frets with Silver Sterling/Pearl inlays
- ☆ Schaller Machine Heads
- ☆ Complete with plush lined case
- ☆ Life time guarantee against all workmanship/materials

PACK LEADER. P.O. Box 22, Blackpool FY1 3SS Tel: 27167

# At 63 degrees below zero my amps never sounded better.



Besides Scott Gorham on lead guitar, Thin Lizzy comprises Phil Lynott, Brian Robertson and Brian Downey.

They've had a string of LP successes from 'Vagabond of the Western World' to their latest, 'Bad Reputation'.

The albums of the last few years have benefited from the gutsy Marshall sound.

Scott Gorham uses five 50 Watt Marshall Valve Combos. Four are stacked up for his guitar and a fifth is used as a cross-stage monitor for Brian's guitar.

The Marshall range now includes two new Master Volume Valve Combos. The 2103 100 Watt and the 2104 50 Watt Master Volume Combos.

The Master Volume Control allows the musician to regulate the overall volume whilst the pre-amp volume control produces the warm overload or clean biting sound as required, making these combos exceptionally versatile. The full Marshall tone equalisation is provided with Presence, Bass, Middle and Treble controls. A standby switch is provided to keep the amp in constant readiness.

If you'd like to know more about these and other Marshall products, simply fill in the coupon below.

"Like most bands, Thin Lizzy earned its reputation playing on the road.

This particular night, we were booked to play the Chicago Stadium. During the night the Alaskan weather had come down into the United States.

The temperature was 63 degrees below zero. None of us had been through anything like it before.

The city was completely trapped. There were accidents and ambulances were stuck three miles away trying to get through.

They blasted out warnings on the radio that no one should go out with any skin exposed, because it'd turn to frost-bite in three minutes.

Of course we were all worried how the amps would play.

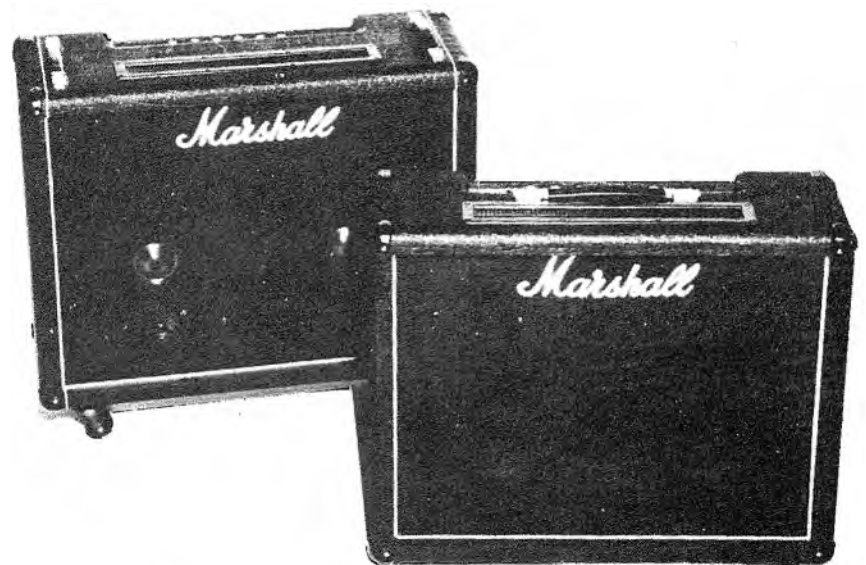
We'd got all the stuff outside in the truck. And it all started freezing over.

Then a roadie got frostbite on one of his legs trying to get the gear out.

Well, the amps were perfect and 20,000 people managed to see us. Crazy!

I'd seen other bands using them but now I'm calling the Marshall 50 watt combo my sound.

It's the sound I've been looking for."



Dear Rose-Morris, please tell me more about Marshall products.

Name \_\_\_\_\_

Address \_\_\_\_\_

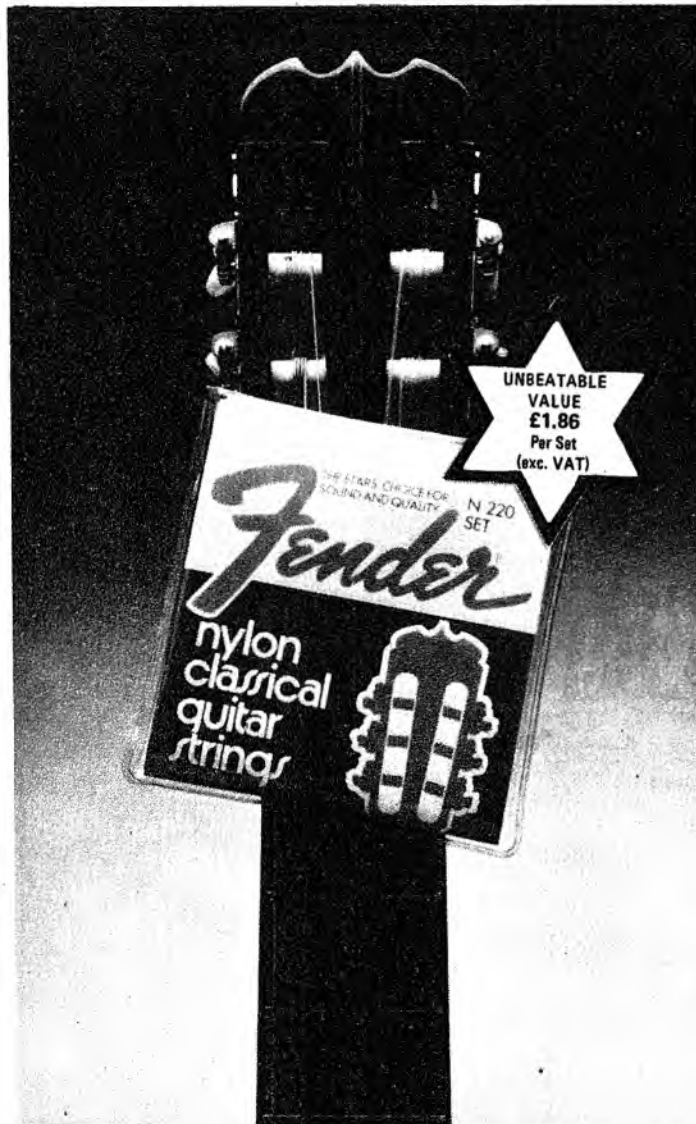
IM.1.78

Rose-Morris & Co. Ltd., 32-34 Gordon House Road, London NW5 1NE. Tel: 01-267 5151



# Classical or Country

Make *Fender* your first and last String (and, of course, the ones in between)



## Classical Quality

Another superb new set of 'Specialist' strings from Fender. Fit the N220 nylon strings to your guitar and you'll find classical perfection. Made to the usual top quality Fender standards, they combine the sounds of the 'Old World' with the sophisticated manufacturing techniques of the 'New World'.

And, like Fender Guitars and Amplifiers, Fender Strings receive world-wide musical acclaim from Professional, Semi-Pro and Amateur players alike. Recommended Retail Price—N220 **£1.86** per set (exc. VAT).



## The Country and Folk Favourite

The new Fender A07XL steel string set combines all the established Fender tonal qualities for the world of Country and Folk music. Just take a look at any of the top bands and you'll see Fender in the line-up. Because if Fender don't know about Country and Folk sounds—who does?

The new A07XL string set gives you the authentic Country and Folk sound—at a price that sounds really great!

Recommended Retail Price—A07XL **£1.94** per set (exc. VAT).

# Fender

Obtainable from all major dealers. Distributed nationally in the U.K. by CBS/Arbiter Limited, Dallas House, Vanguard Way, Shoeburyness, Essex. Distributed in Germany by M. Pellarin, Beethoven Str. 27, 5 000 Koeln 1, West Germany.

# SOUND PAD DIARY

## BEST GUITAR RANGE IN BRITAIN

You know what it's like at most music shops. You walk in and there are the mandatory Strats, Teles, Les Pauls and Japanese acoustics but not much else in the way of guitars. Sure there is nothing wrong with these excellent instruments, but just for a change you'd like to see something more — right?

Check out Soundpad and you won't believe your eyes. This incredible music store is like a guitar manufacturer's catalogue come to life. Graham Pell has got to have the best guitar range in the Midlands and probably Britain that can be seen on ready display in one shop.

Walk into the Aladdin's Cave that is Soundpad and you will see guitars that you had probably only read about: Fender Mustang basses with the competition stripes, Martin D41's, John Birch "Rickenbacker" basses, Fender Precisions in every possible finish, and all too rare Rickenbacker six-strings.

The beauty of Soundpad's guitar range is that there is something there for everyone. Whether you are a complete beginner after your first acoustic or electric for about £20 (or less) or a complete professional with £1,000 to spend on a rare Gibson, Soundpad has the guitar for you.

But the great beauty of Soundpad is that all the hundreds of guitars are on accessible display. Nowhere will you see forbidding signs warning you to keep away from glass-cased expensive instruments. The Soundpad team trust their customers and don't feel it is necessary to make their shop into a vault.

How many times have you walked into guitar shops and seen top models fenced off and covered with signs warning you not to touch under pain of death? How many times have surly "salesmen" breathed down your neck when you innocently pick up even an inexpensive guitar?

None of this hostility exists at Soundpad where a helpful and friendly staff will encourage you to make your selection free of pressure and intimidation. Soundpad trusts its customers to treat the guitar range with respect. And what a range it is.

There are: Fender Strats and Telecasters in all colours, Telecasters with Tremolos, Left-handed conventional copies from Ibanez, new Guild electrics, the new Yamaha SG range, Rickenbacker basses and six-strings, Martin and Mountain acoustic guitars, the new Les Paul Pro, Ibanez Artists, guitars from Antoria, CSL, and even some unique custom jobs like a twin-neck Fender bass and six-string.

Soundpad is also one of the few shops in the Midlands which can sell you a Roland G-500 guitar synthesizer; no mean feat when you consider the waiting list for these instruments.

If Soundpad hasn't got a guitar in stock a customer wants, they'll get it. While International Musician visited the shop we heard one musician from London call Soundpad where his long search for a Rickenbacker short-scale six-string had ended. He had tried most of the London dealers and, finally, only Soundpad could offer him the guitar he was after.

If you buy your guitar from Soundpad, rest assured that it can be readily serviced by Soundpad's excellent repair facilities. There is no reason why a guitar bought from Soundpad cannot be set up exactly the way you want to play it. An important consideration when buying a guitar from any shop.

Soundpad can not only offer you a choice from the best range of guitars in the country. They can sell you any effect pedal you like to go with your axe. Ibanez and Boss effects are doing well at the moment and Soundpad has a full selection of these excellent effects pedals. Needless to say, there isn't a string or pick worth using that Soundpad hasn't got.

So when you come down to it, Soundpad has got to be THE shop for any player serious about making the right choice of guitar under the right conditions. When you walk out of Soundpad with your new guitar you'll have the great satisfaction of knowing you couldn't have improved on your choice.



Graham Pell



# SOUND PAD

## Amps

Whether you're a country picker, a heavy-metal holocaust, or just a student looking for something to practise with, Soundpad has the amp for you. Never has so much equipment been packed under one roof and Soundpad is the shop to give you a definitive selection of amplifiers.

The big strength of Soundpad is that it has been appointed as a dealer by so many different amp manufacturers. This means that you get the full benefit of after-sales service and guarantees honoured without a quibble. The fact that so many manufacturers, from Fender to HH have made Soundpad their official outlet says it all about the quality of the shop and its staff. What manufacturer is going

to risk having his products sold in a place that cannot keep its customers happy. The industry knows it can send its product to Soundpad and get them sold while keeping the customer satisfied.

And Soundpad is not a shop just to sell one or two selections from a maker's range. If Soundpad sells a brand of amplifier you can count on the fact that the maker's entire range will be available through Soundpad.

Take Fender for instance. The Soundpad Fender amp stock ranges from the tiny Champ up to the new 180 watt Super Twin Reverb. And in between you'll find the Princetons, Pro Reverbs, Twin Reverb, Quads, and even the more obscure Super Six Reverb with its six 10" speakers.

If you prefer to buy British, HH and Carlsbro gear is always in stock and you can take your pick of any of the monitors, mixers, amps, and cabs made by these two manufacturers. And of course there is Marshall and Hi-Watt gear ready to be taken away by customers who can also have their minds boggled by the range of WEM Custom Sound, Maine, MM amps and sound systems. Put it like this, if it's worth plugging into, Soundpad have got it.

## Drums and Percussion

What good is a drum without a skin - right? Soundpad has the best selection of skins and batterheads you'll find anywhere to go with its full stock of top drum kits like Premier, Beverley, Pearl and Tama, Ludwig and Rogers. There's no messing about at Soundpad when it comes to drums. No waiting around while a salesman disappears for ages into the back room before coming out and telling you the head you want is out of stock but "should be in this afternoon".

Sticks and skins are on full display right behind the counter so a drummer can see at a glance that his requirement is available. That's at the front of the shop. Towards the back, which is already chock full of every other type of musical goodie you can think of, are the drum kits and cymbals.

## Mixers & Installation

Sound Pad also has a full range of mixers always in stock and you can take your pick from all the top manufacturer's products like MM, HH, Carlsboro, Soundcraft, and Custom Sound. Mixing is becoming an ever-increasing requirement for bands and Sound Pad will almost certainly fill your needs in this department.



Not everyone who buys their gear from Sound Pad is a genius at putting it together. Knowing this, Sound Pad have set up their exclusive club installation service. This means that a team of experts from Sound Pad will go to any club, factory, or hospital where a sound system is needed and fit the equipment. Whether its lighting or sound, Sound Pad will install your system perfectly.

Once you've chosen your kit, you'll find all the cymbals you'll need from Soundpad's comprehensive stock of Zildjians, Paiste, and other quality cymbals. The Percussionist is as important as the guitarist to Soundpad and that is why drummers everywhere will find the right equipment for them at Soundpad's drum department.

## Keyboards

Even since Alan Price first played organ with the early Animals, Rock musicians were quick to see the potential in keyboards and the rhythm/lead guitar format gave way more and more to keyboards and lead guitar, much to the consternation of the poor old rhytm guitarist.

There are now not many bands who do not employ keyboards in one form or another and for any band which is either forming or wanting to upgrade its equipment, a trip to Soundpad will be a worthwhile experience.

At Soundpad you'll find a complete range of synthesizers, string machines, clavinet, electric pianos and organs. All the best names are well represented. You can take your choice of any one of the terrific Roland synthesizers and compare them directly with Moog and ARP models which are also stocked in abundance at Soundpad.

Yamaha and Hohner are other well-known names that are entrusted to the Soundpad team who can give expert advice on all your keyboard needs and let's not forget the Wurlitzer, Crumar, and Fender keyboards that Soundpad stocks.

There is no doubt that synthesizers are here to stay and Soundpad can show you a selection of synthesizers from all of the above-mentioned manufacturers from basic models for those taking tentative steps into the electronic age through to advanced Wakeman's and Emersons who require their machines to look like Concorde's flight deck. Whatever your keyboard requirement is, there is no better place than Soundpad from which to make your selection.

## Accessories

A guitar without strings is just so much useless wood and steel. A drum kit without batter heads is equally as handy. So accessories are an integral part of the music instrument business. At Soundpad

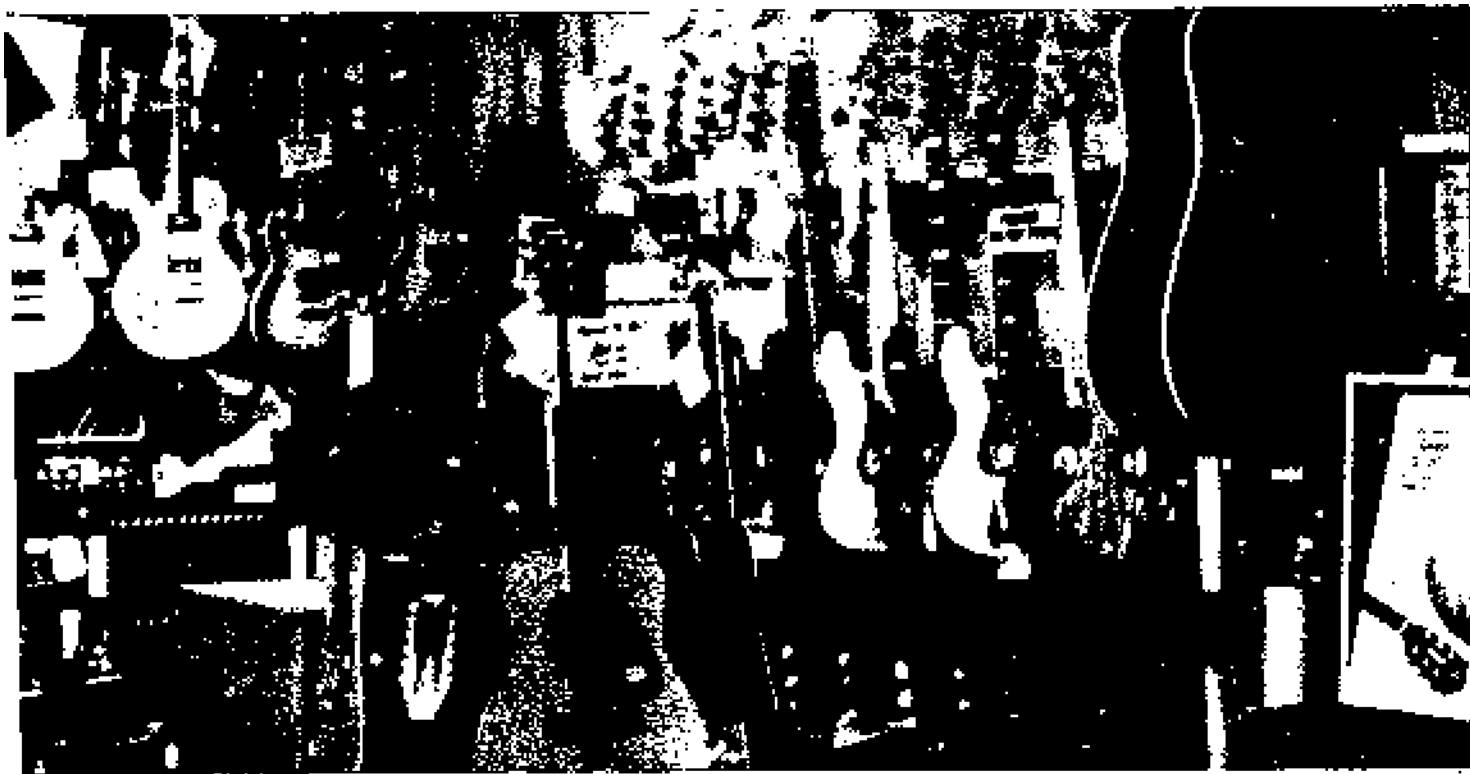
you'll find every accessory you could possibly need.

And this doesn't just mean the usual selection of strings, picks, and sticks. Soundpad also stocks a full selection of pickups, leads and other paraphernalia that can enable a guitarist to achieve his own distinct sound.

In the front of the shop you'll see a huge revolving rack chock full of plastic bags containing leads, pots, and knobs that will fit most any make of guitar. And if you're not happy with the pickups your guitar has, Soundpad has a comprehensive stock of Di Marzio replacement pickups including the Pre BS Tele, the PAF, and Fat Strat. The new Ibanez pickups have got the experts talking and Soundpad can offer you one of these desirable devices as well as a good selection of fittings from Mighty Mite from pickups to new bridges to brass and chrome control plate panels.

Effects pedals are in abundance at Soundpad and you'll find all the Colour-sound range of effects along with MXR, Ibanez (again) and the amazing Boss effects like the Flanger, Chorus Pedal Roland and Electro-Harmonix.

If any of your machine heads go wrong, get over to Soundpad for a new set of Schallers, or Grovers. Practice your time keeping with a metronome from Soundpad or bolster up your instrument with a smart new strap. They are all at Soundpad along with cases to protect your investment, covers for your amp, and everything else to make sure your gig goes without a hitch.



# SOUND PAD DIARY

## Disco Nightlife Depends on Soundpad

Discotheques are booming. And while musicians may regard discos as the kiss of death for live entertainment, there is no doubt that the disco scene represents an important part of the entertainment business.

Everywhere it seems that new discos are springing up and bringing in their wake a whole new form of music which is tailored specifically for disco dancing. You know the music, breathy vocals swept along by an incessant beat and slapping bass.

The travelling disco has become big business and not only is it the Disco Decks and sound systems that are selling well, but also the special

effects that go with any good disco show. Any self-respecting disco operator worth the name would not be seen dead without his supply of ice machines, light shows, oil pattern projectors, and light columns.

As with the musical instrument side, Soundpad has it all. Soundpad knows that the disco scene is separate from the live music side of business so a special disco room has been set up downstairs to give maximum space to the vast range of disco equipment sold by Soundpad.

And rarely will you have seen as much disco gear in one space as you will when you step into Soundpad's amazing world of discotheque hardware.



Everywhere you look are dual record decks with enough control facilities to obtain any sound to fit a myriad of different locations.

Most of the Soundpad selection of dual decks have facilities for fading, monitoring, and equalisation so that a DJ has total control over the sounds he puts out. All the gear sold by Soundpad is quality equipment and with Soundpad's service facilities there is no reason why you should be off the road. If it is necessary to take back equipment because it has fallen off the truck,



there is a chance Soundpad will lend you a second-hand replacement to help you over. That is a measure of the customer service Soundpad gives.

Of course when it comes to discos, music is not enough. Dancers need the whole gamut of special effects to make themselves feel really at home in a disco. Thus, at Soundpad's treasure trove of disco merchandise you'll be able to take your pick from every conceivable effect to make your disco show be one to remember.

There is a full range of light towers and cabinets that flash in exciting patterns to the beat of music coming through your system. Oil projectors cast a kaleidoscope pattern over entire walls and ice machines will make a dancefloor look like something out of a film on London fog.

Put these effects together with the sound you are going to get out of Soundpad-purchased cabinets, horns, and enclosures and you can see why disco nightlife really depends on Soundpad to be an important part of the entertainment scene.

### LET US QUOTE YOU

To: Sound Pad Music Centre, 64 London Road, Leicester. Please give me your price for my musical equipment requirements. I want to buy . . . . . for cash/HP/mail order I have a . . . . . which I am interested in part-exchanging.

Name . . . . .

Address . . . . .



Breadwinner



Deacon



Viper



Preacher



## How Ovation took a hint from the 50's

You remember the Bands of the 50's. The sounds they made were exciting, raunchy and alive. But those sounds were heavy with hum and very rough and ready indeed.

Guitars in those early rock days were usually badly made even though they produced an amazing sound. Ovation have taken a hint from the 50's, added their own expertise and produced an amazing guitar. Great 50's sounds but without hum or background noise. It's called the Viper. Single pole pick-ups, 25½ inch scale length, Schaller Machine Heads, light, contoured body, superb sustain. Really raunchy rock or a clean country sound.

The Breadwinner on the other hand, is built to give you tomorrow's sounds. It's the first solid body to have a built-in FET pre amp. This means that the low impedance double pole Ovation pick-ups can be used with a high impedance amp. Which produces less hum and more sound, a recording engineer's dream. There's an electronic notch switch which controls the phasing between pick-ups, producing some surprising mid-range tone variations. It has an unusual shape that makes it really comfortable to play. The scale length is 24¾".

The Ovation Deacon is the beautiful deluxe version of the Breadwinner. And is also available as a twelve-string.

Both the Breadwinner and the Deacon come in a

selection of colours—White, Black, Tan, Red. The Deacon is also available in a sunburst finish.

If the Viper creates the sounds of the 50's. And the Breadwinner is the sound of tomorrow. Then the Ovation Preacher is definitely the guitar of the next century.

The sounds you can produce with it bring any sort of music to life. From jazz to the heaviest rock; sweet and bright sounds or as dirty as you like.

The new double pole pick-ups produce more sustain and virtually eliminate "noise"—leaving only what the player intends. The Preacher can be played in stereo or mono and a split lead is provided. It has a double cut-away for easy access to the top register and the fingerboard is semi-flat to give easy note pulling and bending. The scale length is 24¾".

All the Ovation solid bodies have Ovation Schaller Machine Heads. These are smooth and positive which means they don't slip or lose accuracy.

They all have bronze bridges which improve sustain. They all have fully adjustable detachable necks. And plush lined cases are available to protect your investment.

But if you want to know why you should own an Ovation you've just got to play one!

Find out more. Fill in the coupon.

Dear Rose-Morris Please send me more information about Ovation Guitars

Name \_\_\_\_\_

Address \_\_\_\_\_

Another  
Superb  
Rose-Morris  
Product

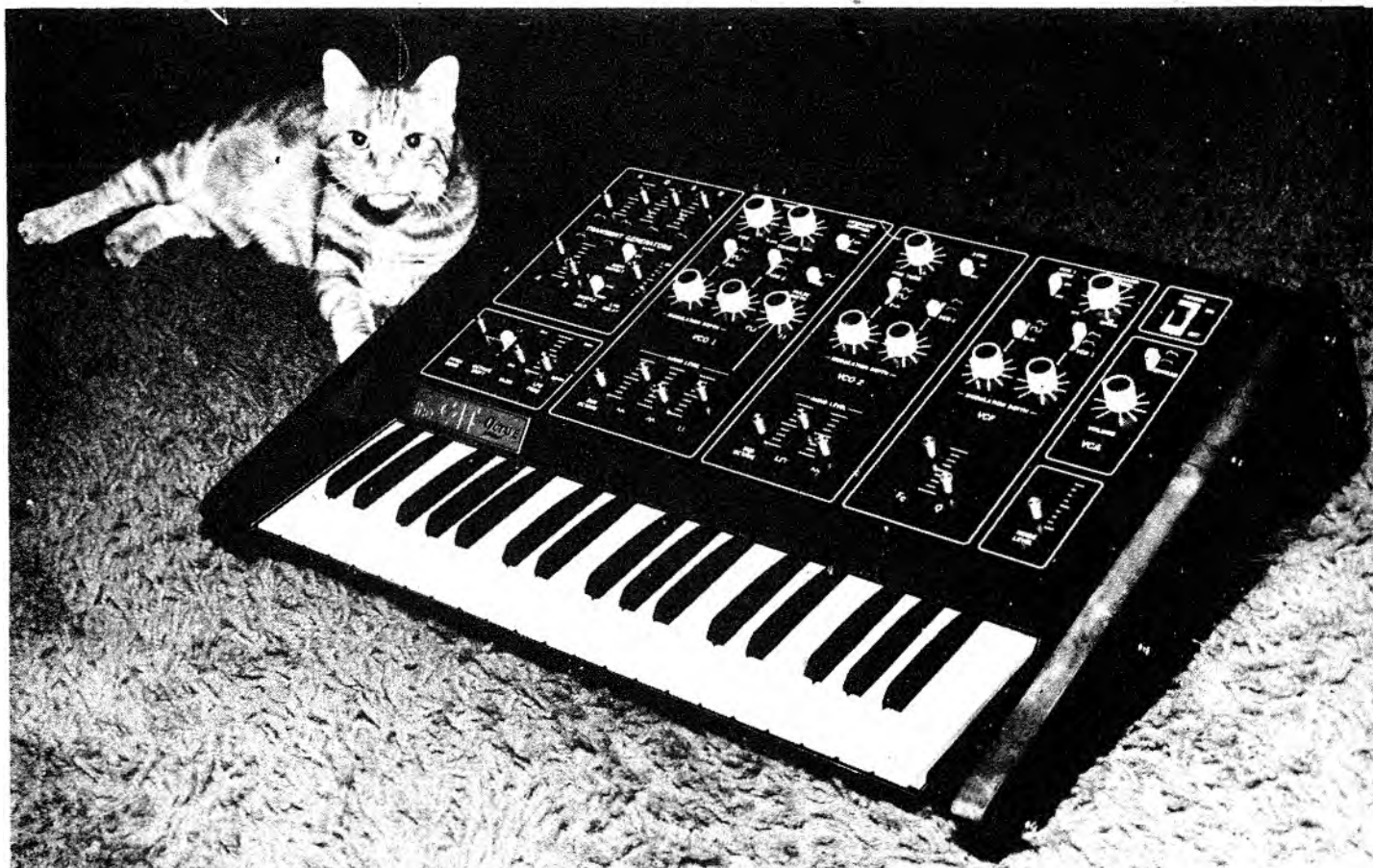
**Rose-Morris**  
**OVATION**

IM.1.78

Rose-Morris & Co. Ltd., 32-34 Gordon House Road, London NW5 1NE. 01-267 5151.

# WIN THE CAT!

One of the most exciting developments in keyboard synthesizers for years



A superb professional synthesizer with an outstanding specification that is simplicity itself to operate. Patching arrangements can be made easily and quickly by using rotary pots and switches. You can see at a glance where everything is and what everything does.

**Specification:** 3 octave keyboard with monophonic or two-note facility

2 oscillators, 2 transient generators, LFO, VCA, 7 mixable waveshapes, sub-octave facility on each VCO and many other features

**How to enter the competition:**

Answer the four questions on the entry form (page 201) about keyboard players, then tell us, in no more than 30 words why you would like to own a Cat Synthesizer.

Judging will be by the Editor and the winner will be announced in our April issue. The Editor's decision is final and legally binding and no correspondence can be entered into.

*The CAT synthesiser is a PKP product.*

*Further details of the CAT and its full specification can be obtained by completing the coupon on page 111.*

## COMPACT 100



100 watts of the right kind of sound from a handy sized enclosure. This is only one of our latest range of Speaker Systems. Send s.a.e. for brochure.

A genuine Bass Combo — 100 watts R.M.S. and the full range of facilities which our customers have become accustomed to finding on all our products.



## KESTREL-BASS



FUTURISTIC AIDS LTD Henconner Lane · Leeds LS13 4LQ

# Hot and Cool

**Maya**  
GUITARS

Join the professionals, and don't be fooled by the price, they aren't. Over twenty different superb models developed from famous American originals to bring you Maya performance and quality plus truly outstanding value.

*Remondone & Cazzani* SAXOPHONES, one of the fastest actions around with the power in the right place.

# Stentor

SOLE DISTRIBUTORS: Stentor Music Co. Ltd, Reigate, Surrey.

# Build a Mixer

## Part 4

by Mark Sawicki MSc (Eng), Assoc MIEE, MAES

After last month's presentation of the individual channel's pre-amplifier and tone control circuit — the next part of the mixer saga deals with the remaining system's important parts and sub-assemblies, i.e. Main Line amp module, Driver circuit for V.U. meter, PFL/ECHO/FOLDBACK circuits etc.

Referring once more to the Block diagram presented in the first part of this series, it is quite easy to see that the Main Line amp module is the signal summing amplifier part of the circuit, where the specific mixing of signals from all five channels takes place. As indicated earlier, the main active circuit components here are the IC 11 and the IC 12 op amps, connected as in the inverting amplifier configuration. I also explained in Fig. 1 that each channel's output signal (pin C) is connected to the summing amplifier via the relevant 100K ohms resistor (R1 to R5) i.e.

**Pin C of Channel 1 to R1**

**Pin C of Channel 2 to R2**

**Pin C of Channel 3 to R3**

**Pin C of Channel 4 to R4**

**Pin C of Channel 5 to R5**

Another very special circuit detail that I must point out here concerns the method of inserting the Echo Send/Return  $\frac{1}{4}$ " jack sockets between the operational amplifiers IC 11 and IC 12. When the Echo circuit is not in use (nothing connected to the sockets SK 4 and SK5), the audio signal from the Master Fader potentiometer RV1 taken through the normally closed (N/C) contacts of SK4 and resistor R10, returns to the inverting input of the next operational amplifier IC12 (Pin 2).

In situations where an external Echo Unit is required, the Jack sockets SK4 and SK5 act as "Echo Send" and "Echo Return" respectively. Naturally SK4 should be incorporated with the relevant (N/C) contacts as has been shown in Fig. 1. At the top right corner of the diagram presented in Fig. 1, you will find the two Main Mixer output connectors providing signal output from Pin 6 of IC12, via an electrolytic capacitor C1 and resistor R14, being distributed to the outside world through the pair of sockets — SK3 and SK6, a  $\frac{1}{4}$ " jack and an XLR Cannon respectively, both wired parallel to allow for alternative use.

As mentioned earlier in Part 3 of the project, the individual channel Pin B, as the outgoing signal provides all

necessary information fed into the PFL (pre-fade listening) — the selector switch is constructed from a single pole 12-way standard switch kit, and as we have been using 6 positions only, the end stop mechanism is adjusted to allow for 6-way operations only. If we now refer back to Fig. 1, we will see how each channel's signal (Pin B) is connected to the following contacts of the PFL selector switch.

**Pin B of Ch. 1 to contact position No. 1 in PFL selector switch**

**Pin B of Ch. 2 to contact position No. 2 in PFL selector switch**

**Pin B of Ch. 3 to contact position No. 3 in PFL selector switch**

**Pin B of Ch. 4 to contact position No. 4 in PFL selector switch**

**Pin B of Ch. 5 to contact position No. 5 in PFL selector switch**

Additional to the above, in contact position No. 6 of the PFL selector switch, the signal is taken from the Master Fader potentiometer via resistor R16 and R9 — this is a summed signal containing the total information about all the mixer channels and usually marked as " $\Sigma$ " (greek letter Sigma) the internationally accepted symbol for summing processes.

The Rotor part of the selector switch (R in Fig. 1) provides:

i) the output PFL — selected via rocker change-over of the AUX/PFL switch

ii) Through resistor R13 and potentiometer RV4, an additional signal for a headphones' monitoring amplifier with RV4 acting as a phones volume control.

In order to save valuable constructional space on the rear panel, there is one common dual-function output Din socket (SK2) for Auxilliary and PFL applications, however, you always have the alternative of fitting two separate output connectors if so required. Naturally, in such cases, the AUX/PFL rocker switch should be removed.

The second DIN 5 Pin socket (SK1) acts as a Foldback output controlled via RV2 — the foldback level potentiometer, and last, but not least, the V.U. Meter driver circuit, which employs a single IC13 inverting op-amp, with an RV3 pre-set potentiometer for adjustment purposes. The circuit has been developed for use with any moving coil type of V.U. meter, and is calibrated as 1mA F.S.D. (full scale deviation) with OVU marked at an approximate 72% of the full scale.

The power supply requirements

for this stage are again +US, -US, (see Fig. 1) at all the circuit op-amps, Pins No. 7 (+US) and No 4 (-US) and OV and two decoupling electrolytic capacitors C4 and C5 of 50 uF/63v completing the circuit.

### LIST OF COMPONENTS

**Resistors** (all 0.5 Watt @ 5% tolerance)

- R1 — 100. K ohms
- R2 — 100. K ohms
- R3 — 100. K ohms
- R4 — 100. K ohms
- R5 — 100. K ohms
- R6 — 100. K ohms
- R7 — 51. K ohms
- R8 — 51. K ohms
- R9 — 51. K ohms
- R10 — 27. K ohms
- R11 — 100. K ohms
- R12 — 51. K ohms
- R13 — 51. K ohms
- R14 — 1.0 K ohms
- R15 — 330. K ohms
- R16 — 51. K ohms
- R17 — 500 OHMS
- R18 — 1.2 K ohms
- R19 — 1.2 K ohms

### Capacitors

- C1 — 10uF/63v electrolytic
- C2 — 10uF/63v electrolytic
- C3 — 100uF/63v electrolytic
- C4 — 50uF/63v electrolytic
- C5 — 50uF/63v electrolytic

### Semiconductors

- D1 — OA91
- D2 — OA91
- IC11 — 741N
- IC12 — 741N
- IC13 — 741N

### Potentiometers

- RV1 — 10. K ohms Lin single gang "Ruwido" Slider
- RV2 — 50. K ohms Lin carbon
- RV3 — pre-set 100. K ohms
- RV4 — 25. K ohms carbon

### Miscellaneous

1. PFL selector switch; single pole 12 ways (see text)
2. 0.1 inch stripboard size; 45mm x 100mm
3. Miniature Rocker change-over switch
4. 2 Din 5-Pin sockets
5. 3 x  $\frac{1}{4}$ " jack sockets (one incorporated with a N.C. switching facility — see text)
6. XLR Cannon socket
7. Three 8-Pin DIL IC holders
8. VU Meter (1mA F.S.D.)
9. Nuts, bolts, washers, knobs, coloured wires etc.

Fig. 1 This month's diagram

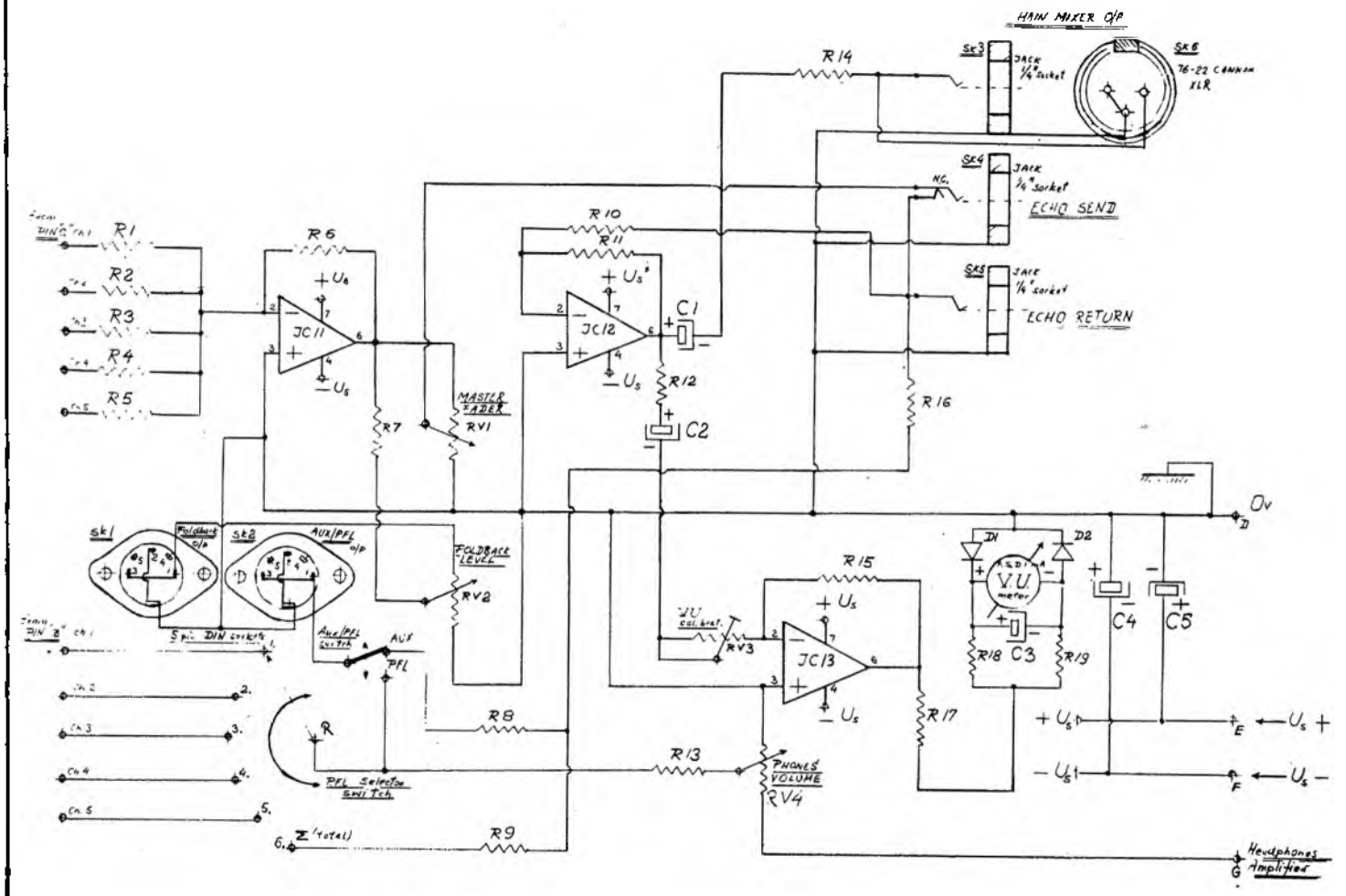
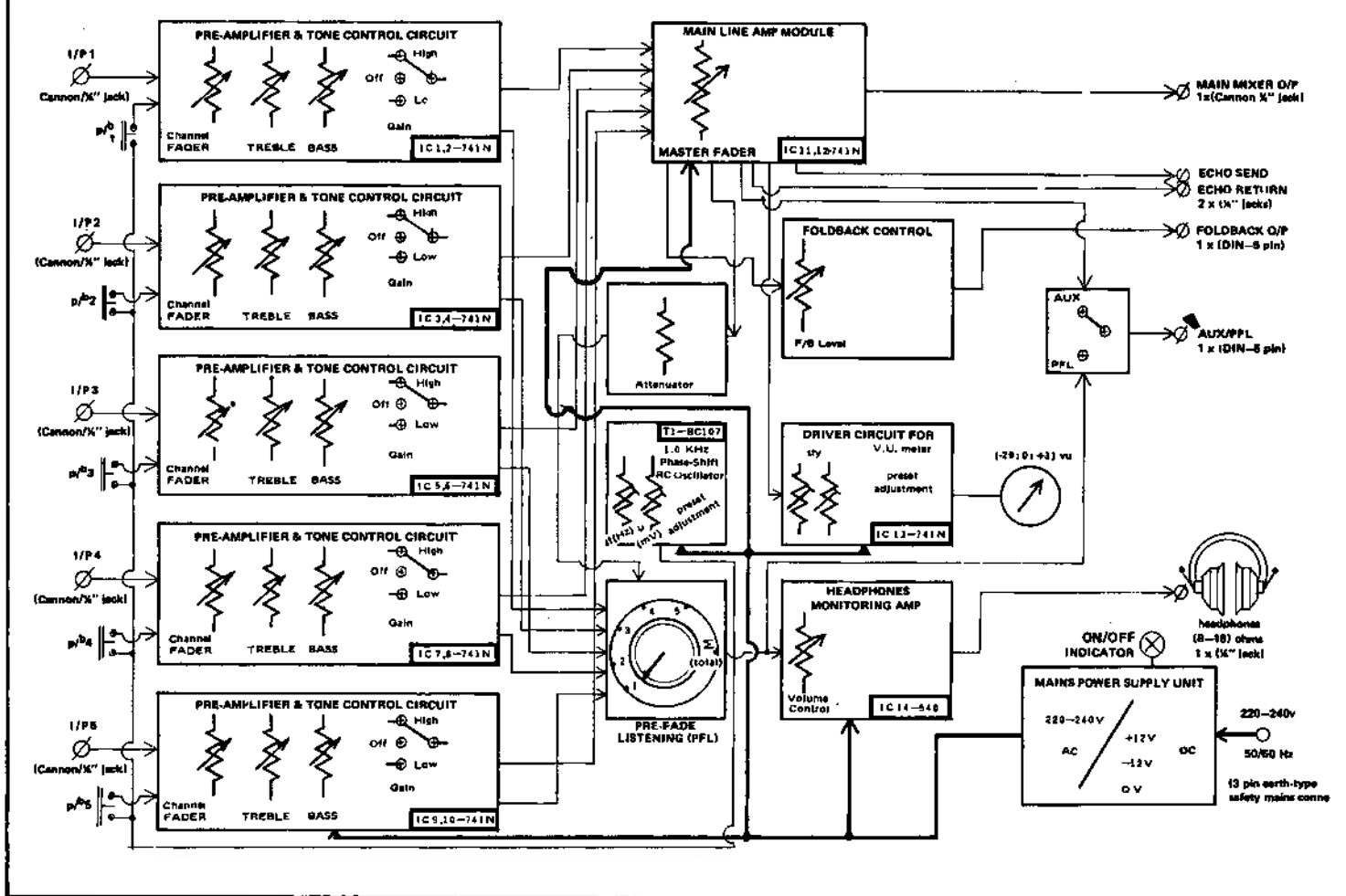
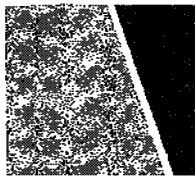


Diagram from first part of series





# fact: the 702 stage monitor cuts through!



**Made for you.** The 702 was designed from scratch after a careful analysis of on-stage performance requirements — Shure tested it on stage, and Shure refined it on stage. Here's what we found:

**You need . . .** Clear, clean sound from your stage monitor without extra bass, and with smooth, high-end dispersion. You must hear yourself . . . above the super-amplified instruments, above the brass.

You want a monitor that cuts through! We've solved the problems, so you hear YOU — no more and no less. Where innovation was necessary, our engineers rose to the challenge. For example, the 702's unique tweeter array with three tweeters mounted in a concave, cross-firing arrangement dramatically



It's compatible with voltage — or current — source amplifiers, and is highly efficient. Handles 50 watts continuous at 16 ohms. The Model 702 Monitor is a necessary part of your act. Put it up front and you'll like what you hear.

increases high-end dispersion. This array eliminates high frequency beaming commonly found with single and double flush-mounted tweeters. This means more freedom of movement for you on stage.

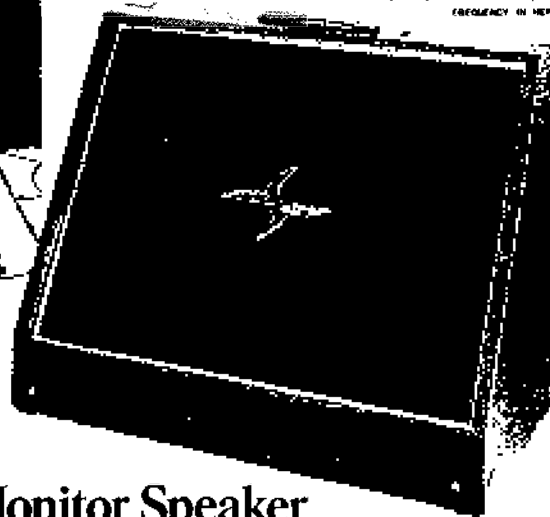
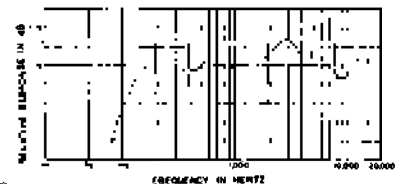
**You also get . . .**

- Super Intelligibility.** Shaped response — boosted mid-range, controlled bass rolloff. Lets vocals cut through on stage.
- Super Output.** 114 dB sound pressure level at four feet (1.2m) with only 50 watts.
- Exceptionally Wide Dispersion.** 90° horizontal, 110° vertical dispersion for broad stage coverage.
- "Roadie" Proof.** 3/8" plywood, corner protectors, rubber feet.
- Built to last.**
- Stage Versatility.** Close-up (30°) or long-throw (60°) set up positions. Great for both roomy and confined stage areas.
- Portability . . .** Looks. All these features in a fine-looking, low profile, and lightweight cabinet.



Unique "wide-angle" concave tweeter array — cuts through on-stage volume, eliminates "beaming" on-axis and muddy sound off-axis.

702 Frequency Response Curve — with enhanced mid-range for outstanding intelligibility.



## Shure 702 Monitor Speaker



### Sound of the Professionals.

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



**CARESS  
THOSE  
NASHVILLE  
NICKELS**

"FOR ELECTRIC GUITAR £2.29 A SET"

# Switch to M-OV valve sound!

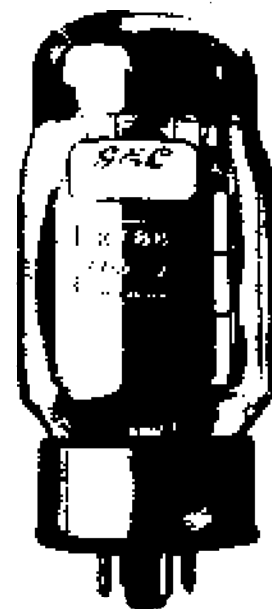
Good push-pull audio power amplifiers deserve good audio beam tetrodes.

That's where M-OV tetrodes come in.

They give excellent linearity and they won't let you down by blowing up at the slightest overload excuse.

You get 50W from a pair of KT66s and 100W from a pair of KT88s.

Better switch to M-OV.  
S.5528



**EEV/M-OV**

Members of GEC - turnover £1902 million



THE M-O VALVE CO LTD, HAMMERSMITH, LONDON, ENGLAND W6 7PE.  
TELEPHONE 01-603 3431. TELEX 23435. GRAMS THERMIONIC LONDON

# FANE

## LEADING SUPPLIERS OF

### HIGH POWER SPEAKERS

### to the U.K. MUSIC INDUSTRY

**THE LARGEST RANGE: Over 50 BASIC MODELS  
Over 400 VARIATIONS on above**

**NEW!**

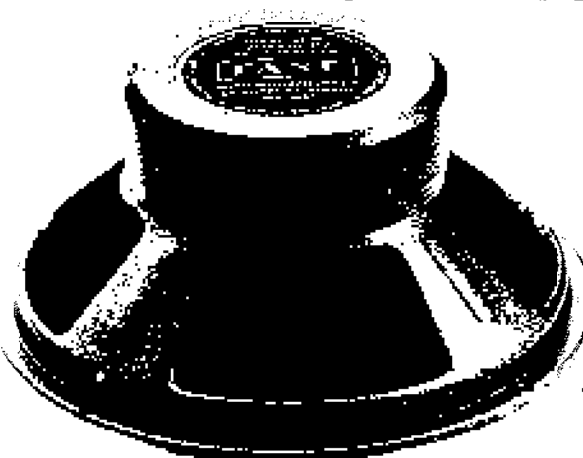
For at least **TWICE THE SOUND OUTPUT**  
with the **SAME POWER INPUT** \*

**NEW!**

A startling new development - our super-sensitive

**MODEL  
G65E**

12" 65 WATTS  
Illustration is typical



AVAILABLE ONLY  
TO EQUIPMENT  
MANUFACTURERS

Multi-purpose especially suitable for P.A. and Lead Guitar

\* Tested against our standard models and units produced by other manufacturers

OUR SPEAKERS are currently used by MOST LEADING U.K. MANUFACTURERS OF GROUP AND DISCO EQUIPMENT  
**FANE ACOUSTICS LTD 286 BRADFORD ROAD, BATLEY, YORKSHIRE**



Through sound and vision to-days 'Rock and Roll' is powerfully projected by PAUL WELLER and BRUCE FOXTON who, for every performance, swear by 'ROTOSOUND' music strings, in particular the GAUGE SELECTION .011" and SWING BASS sets.



---

**GREAT BRITISH SOUNDS COME FROM ROTOSOUND**

---



# BARCUS-BERRY®

Amplifiers and  
P.A. Systems ...



**SOMETHING RATHER SPECIAL  
FROM THE MAKERS OF THE  
WORLDS FINEST TRANSDUCERS**

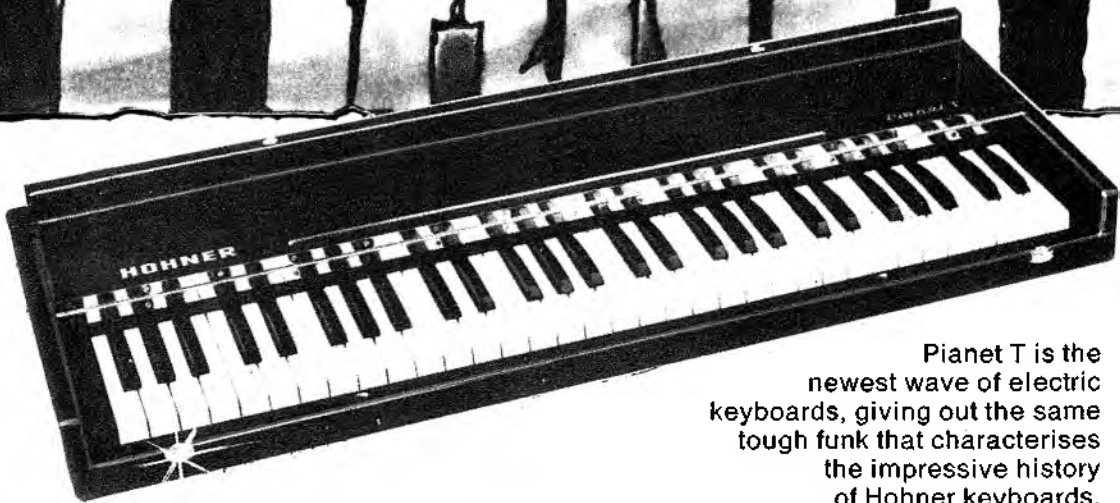
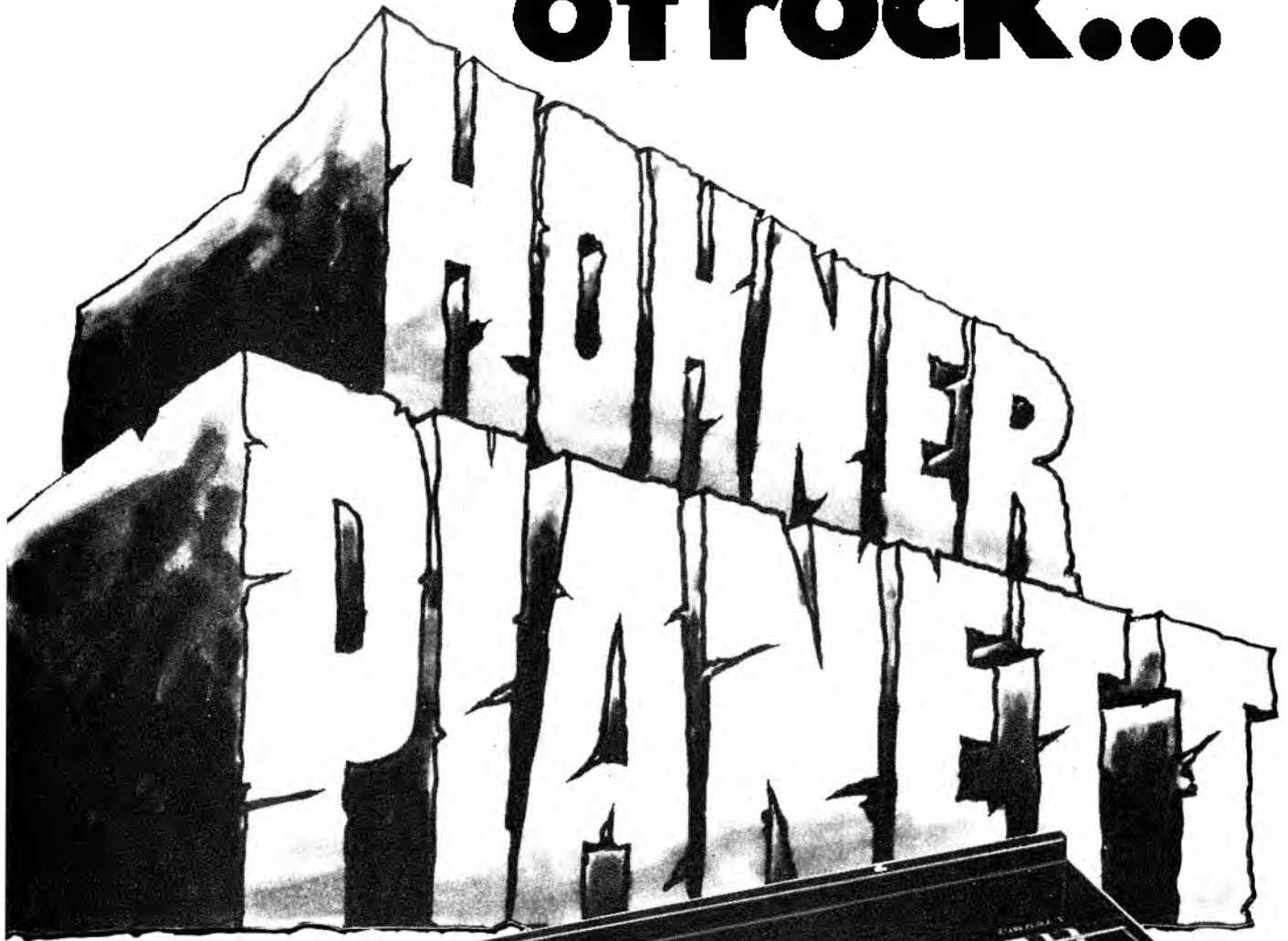
☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆  
**catalogues  
available**  
☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆

---

SEND S.A.E. TO THE NEW SOLE DISTRIBUTORS FOR BARCUS BERRY IN THE U.K. AND IRELAND.  
GUILD GUITARS (UK) LIMITED, 151, PORTLAND ROAD, HOVE, EAST SUSSEX, BN3 5QJ. (0273) 722687/8.

---

# Born out of rock...



Planet T is the newest wave of electric keyboards, giving out the same tough funk that characterises the impressive history of Hohner keyboards.

**...and as portable as a guitar.**

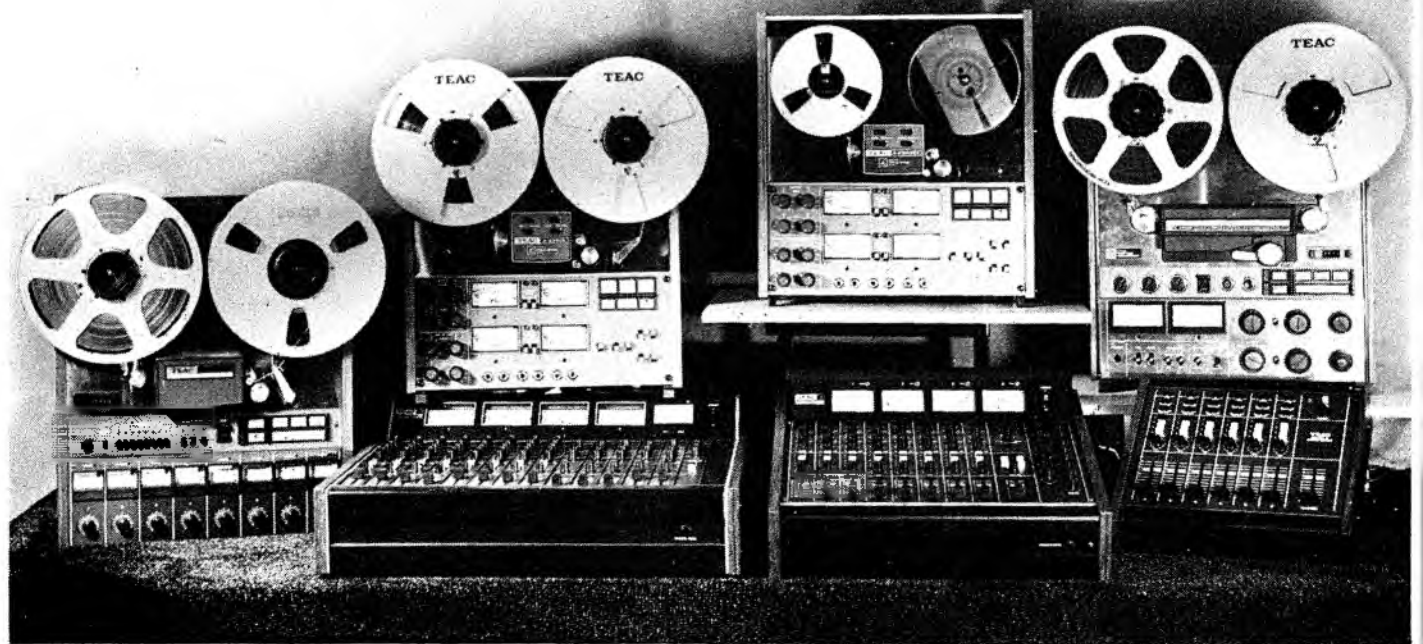
Go see your local dealer for full details.  
Another great keyboard from Hohner.



**HOHNER**

39-45 Coldharbour Lane London SE5 9NR Telephone 01-733 4411/4

# The Teac / Tascam Centre



For the first time in the West End of London, the entire TEAC/TASCAM range of professional recording equipment is on demonstration under one roof.

REW have the TEAC/TASCAM range in stock for immediate delivery, backed of course by the famous REW service.

Also in stock, a full range of recording equipment, microphones, speakers and accessories.

Interested customers should phone John Cowan or Les Adams on 01-836 7851 to arrange an appointment for a demonstration.

**TASCAM 80-8**  
8 track,  $\frac{1}{2}$ " tape, 15 ips, studio quality tape recorder.

**TASCAM DX8**  
8 channel DBX Noise Reduction unit. All functions automatically selected by the 80-8 recorder.

**TASCAM Model 5**  
8/4 professional quality audio mixer. Mic/line inputs, cue and echo sends, sophisticated equalisation, solo, direct inputs, panning, peak LED, buss inputs, tape cueing, monitoring for studio and control room, line and aux outputs, XLR mic inputs, optional talk back.

**TASCAM Model 3**  
8/4 audio mixer — mic line and phono inputs, switched mic attenuation, comprehensive tone controls, panning, full monitoring. Built-in 8-2 submixer enables a

further 8 line inputs to be used with gain and panning.

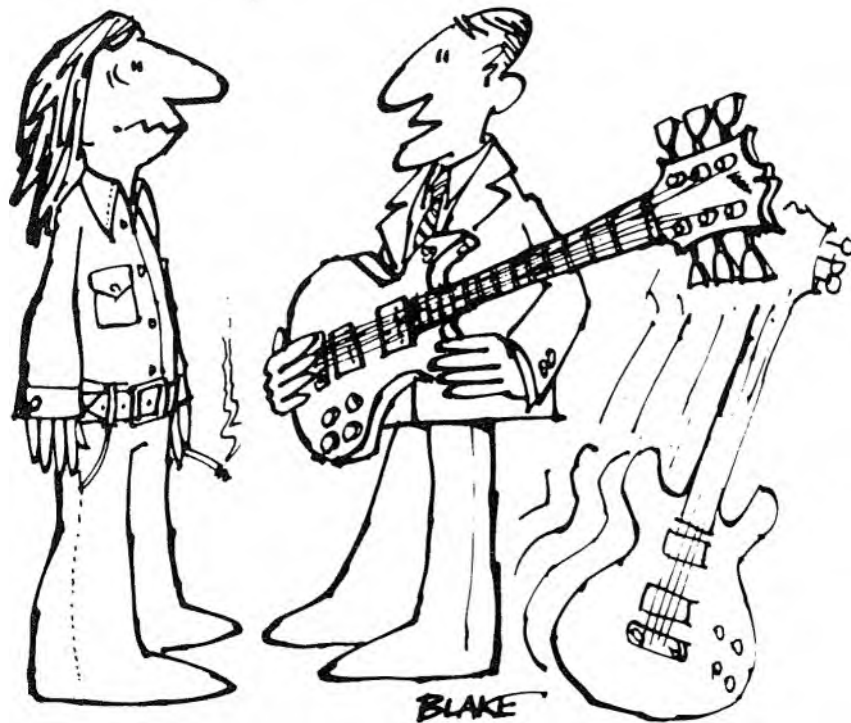
**TEAC Model 2**  
6/4 audio mixer, mic/line inputs — switched mic attenuation, high and low cuts, panning.

**TEAC A3340S**  
4 channel tape deck with simul-sync.  $10\frac{1}{2}$ " spool capacity —  $7\frac{1}{2}$  + 15ips, mic/line mixing, cue lever, solenoid controls.



**REW Professional Audio, 126 Charing Cross Road, and 17 Denmark St., London WC2. Tel: 01-836 2372/7851**

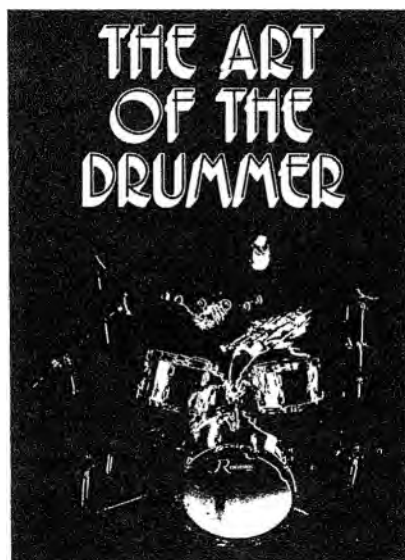
Mail Orders and Overseas Enquiries to: REW House, 10-12 High Street, Colliers Wood, London SW19. Tel. 01-540 9684/5/6.



"BUT IF YOU WANT SOMETHING REALLY CHEAP,  
TRY ONE OF THESE BRITISH COPIES OF THE  
FAMOUS JAPANESE COPIES..."

JOHN SAVAGE'S EXCITING NEW DRUM BOOK AND CASSETTE

# THE ART OF THE DRUMMER



IS AVAILABLE NOW

details from

John Savage's Music Centre

71--72 Norfolk Street,

King's Lynn (Tel: 4026)

Price: book £3.50 cassette £3.50

PLUS 50p post & packing

# JOHN SAVAGE

Ask any musician over the past ten years what prompted him to take up an instrument and join a group, and chances are he'll talk about the influence of the Beatles and the Stones punctuated with references to Bert Weedon's "Play-In-A-Day" guitar tutor.

Now, suddenly, the music world is set on its ear by the advent of New Wave, which apparently decries everything that has gone before and is seemingly full of people who first picked up a guitar just 24 hours before their first gig.

But is that what really happens? Certainly some bands sound as if they don't know how to tune their instruments, but those who are making a real impact like The Damned, Stranglers and The Jam, certainly don't play as if they have learned overnight — so what is the real story?

Generation X are a young New Wave outfit who have been building up quite a reputation recently signed with Chrysalis Records and are poised to break through in 1978. So is it really a case of overnight success?

"No way", says lead singer Billy Idol, "I've been into music ever since I first heard the Beatles when I was about seven. I used to listen to everybody around that time, The Stones, Kinks, The Who and watch them on Ready Steady Go.

"I knew then that I wanted to be up there with them on stage and eventually bought my first guitar when I was about ten. It was a cheap acoustic which cost £5 and I couldn't tune it properly"

"I also got a guitar tutor book and tried to learn some chords, it's the way everybody starts really isn't it, picking things up off records, looking through the book and trying to play the chords".

"I liked that basic rock and roll of

# Talking 'bout Generation

by David Lawrenson

the early bands, but things changed with progressive music. I was never a lead guitarist, I liked playing rhythm, but there was no way I could do great long solos".

Billy remembers the early school/youth club groups scene but felt a bit out in the cold with the advent of progressive music and began to listen to the raw energy of American performers like Lou Reed and The Stooges.

"In the early Seventies, I knew what kind of band I wanted, but could not find anybody else who wanted to play like that. It was only with Punk Rock that I was able to do it, if I could have found the right people in 1972, I would have done it then".

His frustration led to an advertisement in a music paper asking for musicians for a Who-type band. Tony James turned up, and the two hit it off immediately, Tony being recruited as a bass player.

Tony's musical history is similar to Billy's, he has always been interested in music and soon realised he wanted to play bass. He said: "When I saw groups, I really wanted to be up there on stage with them. My first real guitar was a £15 Shaftesbury copy of a Fender, but I later made my own perspex guitar. In common with most people I always wanted a Rickenbacker".

Tony was in groups at school, and played with friends in a variety of bands ranging in influence from the Pink Fairies through to Hawkwind but became increasingly influenced by the likes of the New York Dolls and MC5.

The meeting with Billy formed the basis of a band named Chelsea who attracted attention during 1976 before folding towards the end of the year.

Billy was playing guitar and writing the material, but was not happy with the way the group's vocalist was handling them.

The pair stuck together and set about forming Generation X with Billy discarding his guitar and concentrating on vocals. They eventually recruited drummer Mark Laff from the Subway Sect, and spotted guitarist Bob Andrews in a youth club band.

They played their first gigs in December 1977 but soon came up against a problem. Tony said: "Most of the clubs and pubs would not put punk bands on, so there were not many places to play. That was when we found a small club in Soho and decided to open up our own venue.

"We set about doing the place up and making a stage with the help of friends and other musicians and eventually opened up as the Roxy".

The Roxy was the first real venue which catered for the New Wave, and many new bands were launched there before it became almost a tourist attraction and lost much of its atmosphere.

Billy and Tony resent the idea that New Wave bands just get up on stage without any rehearsal and play the first thing that comes into their heads.

Said Billy: "It is a 24-hour a day thing, we are always thinking about new songs, improving, trying things out and practising. We are just like any band, you have got to rehearse, somebody like the Sex Pistols probably rehearse more than anybody".

The pair write all the band's material, Billy working out tunes on his Epiphone Casino and Tony contributing the lyrics. They feel that a good song title is the best starting point, once the idea has been thought of the theme is then developed through the rest of the lyrics and they are not afraid to widen the scope of their writing and progress.

"Punk rock has become cliched," announced Tony: "It has all been said, we want to write about more interesting things, we want to progress and use different chords. That does not mean we will be doing anything very complicated, it will still be basic rock and roll, but the chords we use will be different".

Both agree that image is important, but a feeling for the music, rather than mere technical brilliance is vital. The New Wave has prompted many youngsters to grab an instrument and get up on stage, but if the interest is just part of a passing fad then it is unlikely to survive, for very long.



Generation X

**INTO THE  
FUTURE  
WITH ELKA!**



## The ELKA X705 portable organ

with upper manual polyphonic synthesiser. Pre-set and variable monophonic synthesiser (upper/lower/bass pedals). 49 note keyboards, draw bars, percussion, piano and strings (upper and lower manuals) sustain auto/chords/bass accompaniment all with memory computer plus 16 drum rhythms with drum break control. Choice of four output sockets.

The price ? ? ? . . £15,000 ? £10,000 ? £5,000 ? NO! ONLY £2,189

For further information contact Tony Back on (0273) 686637 or Nando Fahi at

**ELKA-ORLA (U.K.) LTD**

19, Bluebridge Industrial Estate, Halstead, Essex.  
Telephone Halstead (07874) 5325



# THE GREATEST LITTLE 8 TRACK IN THE WORLD THE NEW FULL LOGIC BRENELL MINI 8



The first one inch tape recorder to bring true professional standards within the grasp of the smaller budget conscious studio.

For further information and a full colour brochure contact Andrew Stirling or Andy Munro at:  
**Allen and Heath/Brenell Limited, Pembroke House, Campsbourne Road,  
Hornsey, London, N.8. Tel: 01-340 3291 Telex: 267727 BATGRP G**

# The Hagstrom Story

Hagstrom make some very fine guitars. And that, as far as most of the world knows, is where the story ends. But for musicians in Scandinavia Hagstrom is a way of life.

In Britain and America, guitarists have been offered various instruments bearing the Hagstrom name over the last 20 years and recently the name has been associated with an exceptionally fine range of instruments with the Hagstrom Guitar Synthesizer as flagship of the fleet. But manufacturing only accounts for about ten per cent of the Hagstrom operation.

In Scandinavia, Hagstrom is principally known for a large chain of retail music stores. Almost every major city in Norway, Sweden and Denmark has a Hagstrom store and it's been that way for the last 40 years.

The empire is founded upon piano accordions. In the 1920's a Swedish farm hand called Albin Hagstrom found he had a talent for playing, making and selling piano accordions. He went into

business manufacturing the instruments at the extremely tender age of 19 and within 10 years had built up a business exporting to many parts of the world.

The business was founded in his tiny mid-Sweden village of Aldvalen and as his fortune began to mount, he opened retail shops in various parts of Scandinavia. During the war the business contracted without severe loss and immediately peace was restored he set about expanding the empire again. But he died suddenly at the age of 46. About to go on a business trip to the USA, he was inoculated against smallpox and complications set in following the injection. He died soon afterwards.

His business did not crumble. His widow appointed a Managing Director in a caretaker role until her children were old enough to take over the business. Today her eldest son, Karl Eric Hagstrom is the head of the now much expanded empire.

The 1950's presented Hagstrom with its first stagnant period. The long

boom in piano accordions was over and the latin and French influence that had dominated popular music for so long gave way to a new form of American popular music. The instrument of the new music was the guitar.

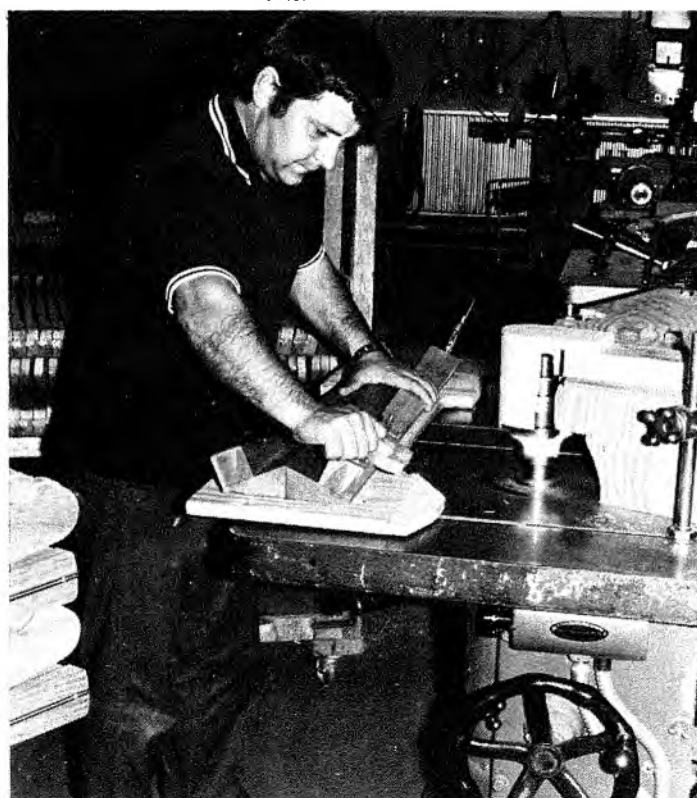
During this slow period more retail stores were opened and the company considered what to do with its manufacturing facility. Karl Eric Hagstrom finished his education in the USA and after looking very carefully at the market there he decided that guitar making should be the future concern of the Aldvalen plant.

From 1957 onwards Hagstrom guitars became available. In the early years the company also made instruments with various brand names and British guitarists may well remember the Futurama models that were popular in the early sixties.

Like the rest of the world Northern Europe experienced a massive boom in "teenage orientated" music in the sixties and Hagstrom benefitted greatly from this.



Pete Olsson, Hagstrom's Chief Designer with a guitar synthesizer neck.



A jig for shaping "Swede" necks.



Hagstrom amplifiers were introduced and they have now gained the number one sales position in their home market although they have yet to gain acceptance abroad.

Hagstrom are now more aggressive (in the nicest sense) than ever before. The day to day running of the entire organisation is left in the hands of Roland Beronious and Torgil Hagman who operated from the company's head-quarter in Malmo, Sweden. Karl Eric's younger sister Justine is also extremely active in the business developing the professional end of the retail operation.

If there is one word which sums up Hagstrom's approach to guitar making it is quality. Many of the hand-building operations carried out at the Aldvalen plant would be considered "old fashioned" in other industries, but in high quality instrument making there is absolutely no substitute for care and personal attention.

Most of the craftsmen working at the plant have been with the company for many years and their dedication to

quality is just as great as it was in the 1930's.

Onto this background of traditional workmanship has been blended the art of high technology as applied by Pete Ollson. Pete is the electronics designer for Hagstrom and he's been with the company since 1964 developing some exceptionally good amps and echo units. He contributed largely to the development of the Guitar Synthesizer and he is now working on electronic developments which will surface in future Hagstrom Products.

The retail side of Hagstrom is also changing. In Stockholm a new Orchestra Terminal has been opened. This is a professional "drive-in" store designed to cater exclusively for professional musicians. The equipment available here is limited to top line professional amps, guitars, drums and keyboards and the shop makes a special feature of large PA systems.

An unusual incentive scheme operates in the retail arm of Hagstrom and it serves to ensure first class service

in each of the company's 48 outlets. Once a shop manager has proved his worth to the company, he is allowed to start his own private business within the Hagstrom store selling accessories. He is responsible for buying and selling such items as picks, strings, straps, mouth-pieces and so on and if he's good at making the store attractive and keeping the customer level up he stands to earn far more than usual shop managers out of the operation. The company has been operating the scheme for several years and they say it is extremely successful.

The next big step for Hagstrom is to increase their worldwide market for Hagstrom guitars. Their overseas distributors — Fletcher, Coppock and Newman in the UK and Selmers in the USA — are doing much to further the Hagstrom cause and the Swedish company are right behind their overseas agents giving them help and guidance.

Hagstrom intends to be a major force in the guitar market. The guitarists of the world will decide.

**Ray Hammond.**

# The Hagstrom Story



Final assembly

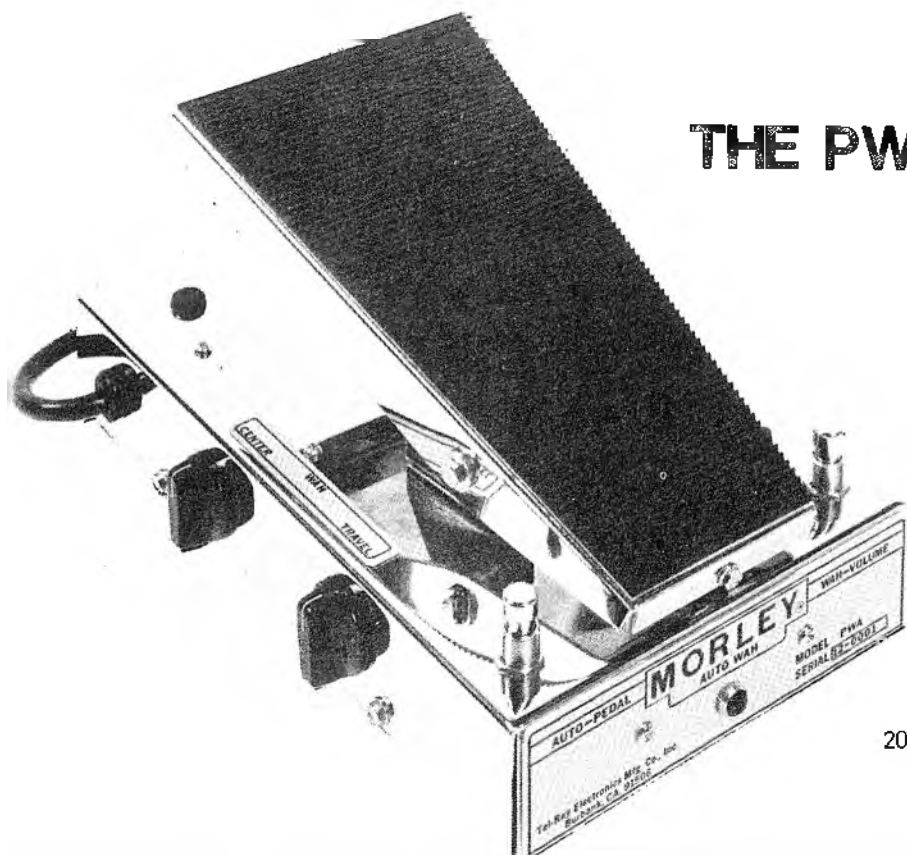


Karl Hagstrom shows a "Futura" bass — a favourite in Britain during the early sixties.

THE ULTIMATE WAH!

Morley®

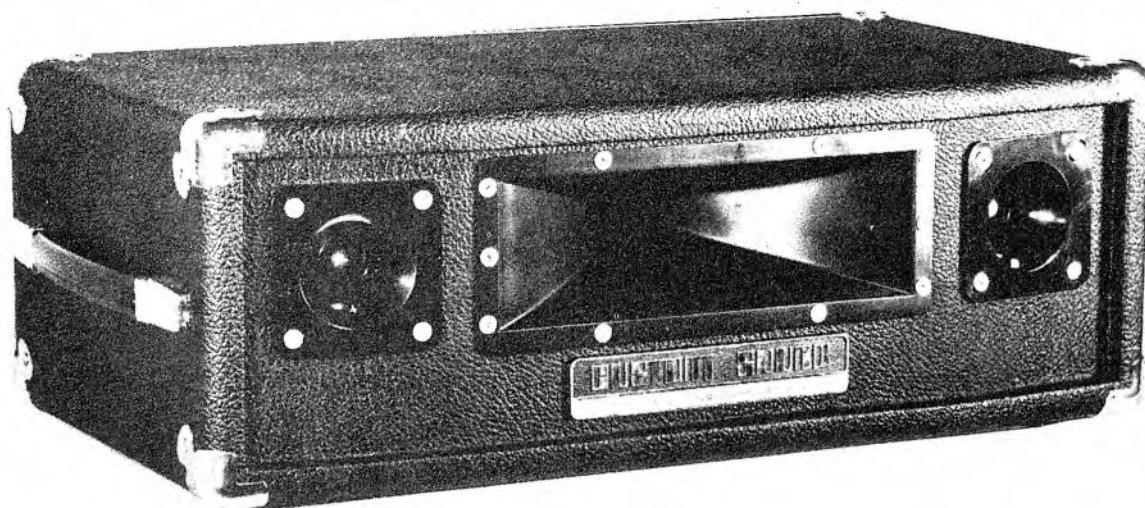
THE PWA



**MORLEY** Products are distributed in the U.K. by **STRINGS & THINGS LTD.**  
20 Chartwell Road, Churchill Industrial Estate,  
Lancing, West Sussex BN15 8TU

Send large S.A.E. for free brochure.

RUGGED AND RELIABLE CONSTRUCTION • MODULAR CONSTRUCTION ON ALL 700 SERIES AMPLIFIERS



THE CUSTOM SOUND 7HB HORN BOX UNIT DOESN'T JUST ADD A BIT OF TOP BUT EXPANDS YOUR SPEAKER ENCLOSURE INTO A FULL RANGE UNIT. TWO TWEETERS (NOT PIEZOS!) GIVE SOARING TOP RESPONSE WHILST A WIDE DISPERSION H F HORN PROVIDES RESPONSE RIGHT DOWN TO THE MID FREQUENCIES, AND THERE'S A PRE-SET BUILT-IN CROSS-OVER.

**CUSTOM SOUND**

PROFESSIONAL SOUND EQUIPMENT

**Custom Sound (Solid State Technology) Ltd.**

CUSTOM HOUSE ARTHUR STREET  
OSWESTRY, SALOP SY11 1JN  
UNITED KINGDOM  
Tel: Oswestry (0691) 59201/2

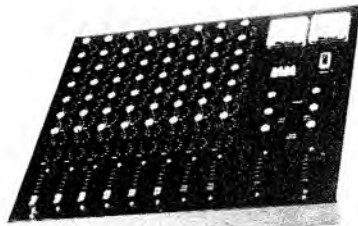
MODULE EXCHANGE SCHEME EXTENDING LIFE OF AMPLIFIER • MODERN LOGICAL STYLING • MIXERS

MUSICAL INSTRUMENT AMPLIFIERS • HIGH EFFECTIVE SPEAKER DRIVER UNITS

PUBLIC ADDRESS AMPLIFIERS • 2 YEAR LABOUR AND PARTS WARRANTY

**WEST-END CENTRE**  
**MM**  
 ELECTRONICS

The full range of **MM** equipment  
 in stock for immediate delivery.



DEMONSTRATIONS WELCOME

**REW** AudioVisual

REW Professional Audio, 126 Charing Cross Road  
 and 17 Denmark Street, London WC2.  
 Telephone: 01-836 2372/7851.

Mail Orders to: REW House (Dept IM),  
 10-12 High Street, Colliers Wood, London SW19  
 Telephone: 01-540 9684/5/6.

**KENNAARDS SOUND RANCH**

86/88 Northgate,  
 CANTERBURY,  
 KENT.  
 Tel: Canterbury  
 (0227) 60331



10 New Rents,  
 ASHFORD,  
 KENT.  
 Tel: Ashford  
 (0233) 23226

MAIN AGENTS FOR

**Premier**

1st IN PERCUSSION

Zildjian <sup>5</sup>☆☆☆ SUPER ZYN Ufip

☆☆ 2 ZYN ZYN KRUT

NEW ERA

PREMIER PARADE

Comprehensive range always  
 in stock.  
 Ring STEVE at CANTERBURY or  
 TREVOR at ASHFORD anytime  
 for full details.

*SOUND & ROBUSTNESS:  
 a dream for all guitarists?*



*NORMAN dreamed  
 about it for ten years  
 Now for us, it's a reality*

GUITARS  
*Norman*

From:

**sibecor**

5695, Boul. Des Grandes Prairies,  
 Suite 136, St. Leonard,  
 Quebec, Canada, H1R 1B3  
 Tel.: (514) 327-3810

SWITZERLAND MUSIK MULLER  
 Bern  
 Zwingergasse 27  
 Switzerland  
 Tel: 031 22 41 24

SWITZERLAND MUSIK HUG  
 Ag. Ch.  
 8032 Zurich  
 Switzerland (Limbiqua) 20. 281  
 Tel: 01 21 68 50

WEST GERMANY LUXOR MUSICAL INSTRUMENTS  
 G. 7500 Ulm (Donau)  
 West Germany  
 P.O. Box 2810  
 Tel: (0731) 28 20 31

BELGIUM LUTHERIE AZZATO  
 Rue des Epaveuses, 70  
 1050 Brussels, Belgium  
 Tel: 812 37 52

SWEDEN MUSKANTOUR & CO AB  
 Kryppengatan 5B  
 S-431 33 Molnare  
 Sweden  
 Tel: 031/87 90 90

FRANCE J. CAPELLÉ DISTRIBUTION  
 6 et 8 rue Leon Girard  
 75019 Paris, France  
 Tel: 208 16 3 1839

ENGLAND YVOR MAIRANTS MUSICENTRE  
 1/8 Rathbone Place  
 London, England  
 W1P 1AE  
 Tel: 01 636 1481

DENMARK SUPER SOUND MANAGEMENT  
 3520 Farum  
 Bygmarken 1, Denmark  
 Tel: 02 951732

# A book for Christmas

**Electronics by Rosetti** is a 16-page brochure full of carefully selected, expertly tested electronic musical instruments and accessories that have two things in common. They are very competitively priced and they have the Rosetti service back-up. Any fault that isn't your fault gets put right quickly.

Echo Dek, Jen, Hillwood keyboards, Pigmy organs, Shure microphones and amplification, many accessories — all pictured and fully described and priced. Send the coupon and a 9p stamp for the brochure. In the meantime compare these items for price and performance with others on the market.

## LITTLE GIANT AMPLIFIER

Specially designed for practice, tuning-up, home use — wherever you want to keep it down. But . . . with plenty of punch and enough power for good professional performance. There are 3 inputs, tremolo, volume and tone controls. Output 5 watts. Weighs almost nothing. **£29.99**

## HEADPHONE AMPLIFIER

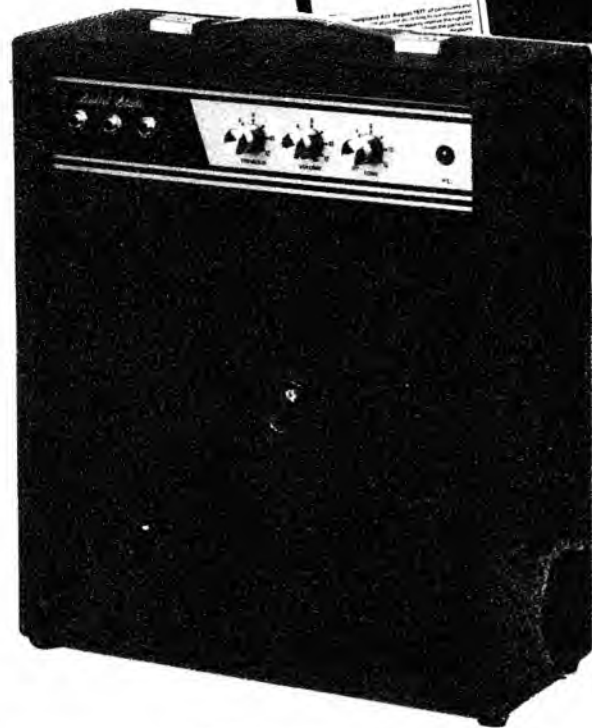
You're right out on your own, rehearsing, tuning, performing, succeeding — on organ or guitar — without bothering a soul. The black, padded headpiece contains a 9-volt battery. The on/off switch incorporates volume control. Turn on to yourself. **£15.95**

## JEN EFFECTS PEDALS

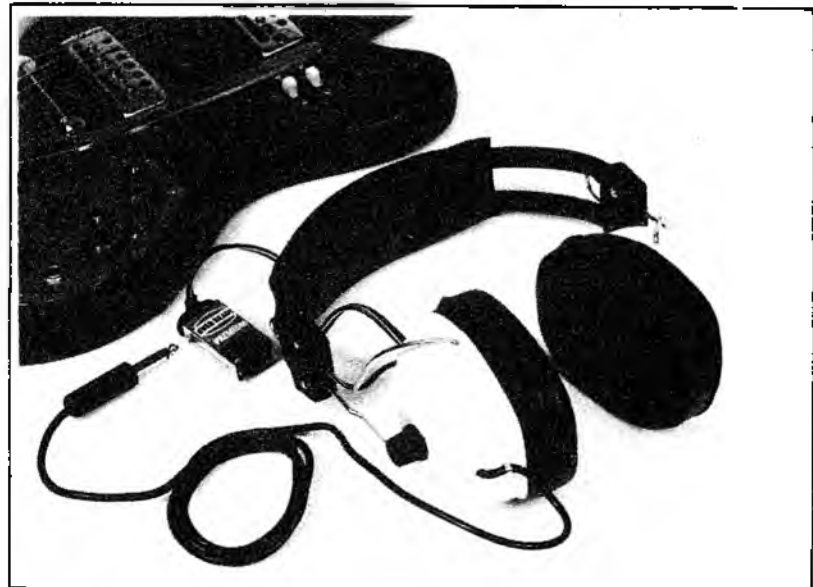
Still one of the world's best sellers, **Cry Baby** gives you that wild eastern 'sitar' sound, funky bass guitar, groovier blues, makes your guitar really growl. **Mr Cry Baby** adds many more, can be used also with piano and organ. **Phase Shifter** moves into another dimension, adds both intensity and speed controls.

All are built into rugged die-cast cases with a handsome crackle finish. And all are priced, for today, amazingly low . . .

Cry Baby and Phase Shifter **£19.95**  
Mr Cry Baby **£24.95**



LITTLE GIANT AMPLIFIER



HEADPHONE AMPLIFIER



JEN CRY BABY

To: Rosetti Adept, The House of Music,  
138-140 Old Street, London EC1V 9BL  
Please send me your Electronics Brochure with full details of your keyboards, electronic and reed organs, amplifiers and echo units, effects pedals and accessories, Shure microphones and amplification. I enclose a 9p stamp to cover postage.

Name \_\_\_\_\_

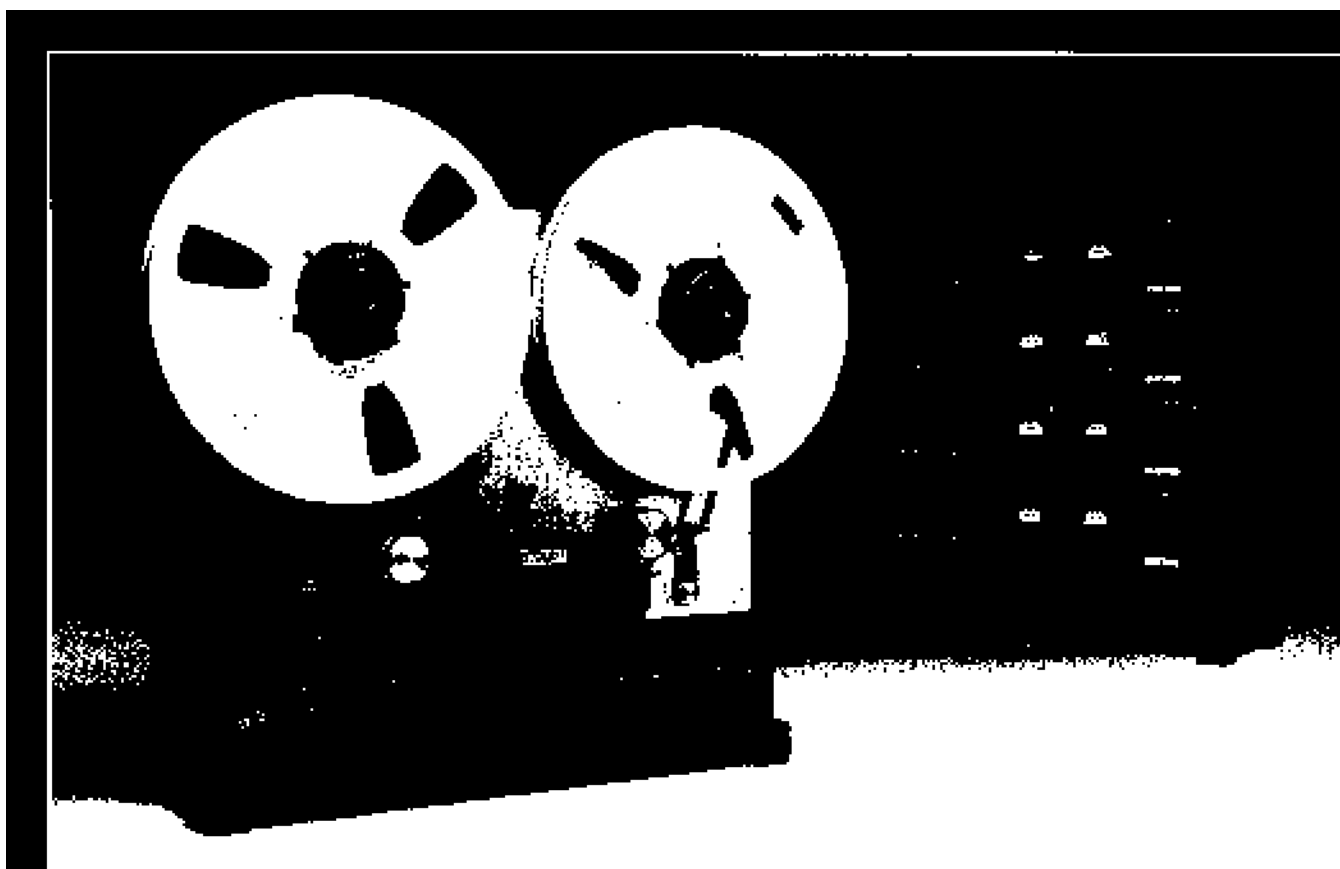
Address \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

# OTARI

## The unusual masterpiece : half-inch, eight-track. Otari MX5050-8SD for discriminating recordists.



If you have been thinking eight-track machines are bulky and costly, this unusual one will change your idea. It's exceptionally compact, yet comes with every feature critical professional applications require. DC-servo capstan motor for less than 0.05% wow/flutter, with  $\pm 7\%$  pitch control. 63 dB S/N and greater-than-50 dB crosstalk. Selective reproduce on all eight tracks. Motion sensing control logic, front panel edit and adjustable cueing control for fast-mode monitoring. Front adjustable bias, record equalization and output level. 600 ohm

+4dBm fixed output with XLR connectors. And it comes with the latest plug-in card electronics. The compactness and performance make it ideal for live recording.

In short, the MX5050-8SD is an exception of eight-track professional recorders with performance, reliability and economy internationally proven in hundreds of applications producing high quality 15 and 7-1/2 ips masters. For the full story of this unique model, get in contact with your nearest Otari distributor.

Please send me details on  
**MX5050-8SD**

Name \_\_\_\_\_

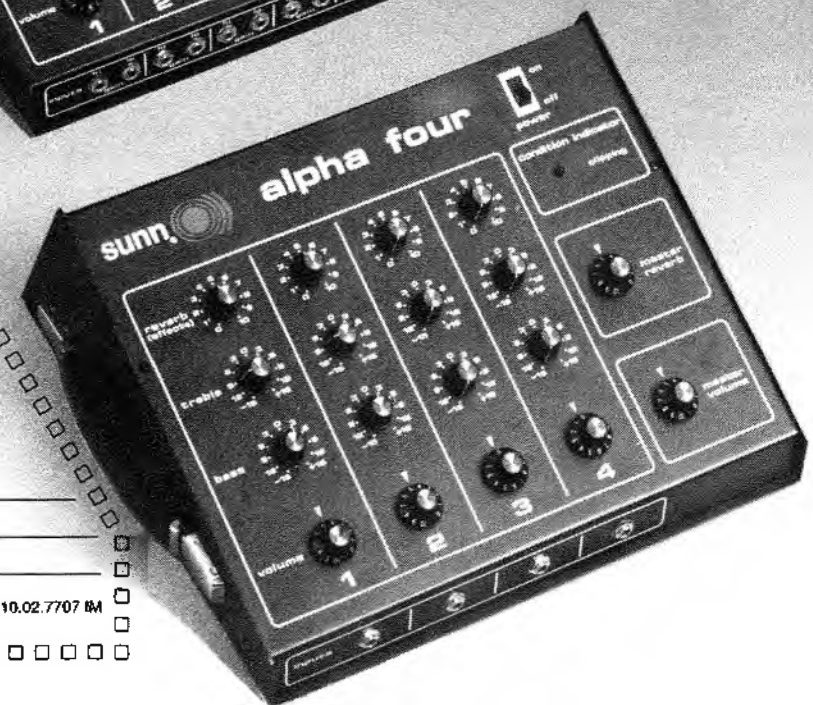
Company \_\_\_\_\_

Address \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

TM

Japan: Otari Electric Co., Ltd., 4-29-18 Minami Ogikubo, Suginami-ku, Tokyo 167, Japan U.K.: C.E. Hammond & Co., Ltd., 111 Chertsey Road, Byfleet, Surrey KT14 7LA  
France: Reditec, 62-66, Rue Louis Ampère, Zone Industrielle des Chanoux, 93330 Neuilly-s/Marne West Germany: Peter Strüven GmbH, 2 Hamburg 53, Bornheide 19  
Belgium: Trans European Music S.A., Kooivijverstraat 106, 1710 Dilbeek, Brussels Italy: Exhibo Italians S.R.L., 20052 Monza, Via F. Frisi, 22  
Switzerland: Audio Bauer AG, CH-8048 Zürich, Bernerstrasse-Nord 182, Haus Atlant Australia: Klarion Enterprises Proprietary Ltd., Regent House, 63, Kingsway, South Melbourne, 3205

# If you can't decide between getting a sunn P.A. system and an inexpensive P.A. system, get both!



At Sunn we've learned that, too often, lean bank accounts get in the way of your ability to purchase a P.A. that will suit your needs. So we've taken the electronics and manufacturing expertise that went into our Automated Sound Systems and applied it to three, new, inexpensive systems with features that reflect the latest in technology and the most musically practical benefits. We call them our ALPHA SERIES. Each Alpha P.A. console (4, 6 or 8 channels) features 100 Watts RMS, Phase-Sync<sup>®</sup> tone controls, high and low impedance operation, and the same "integrated" design of Automated Sound—Generation II. And they start in price at \$299.00 (suggested list price)! Write us for more information. Or better yet, see your nearest Sunn dealer for a free demonstration. After all, music's the thing...and we're here to help!

 **sunn**  
 **SUNN MUSICAL EQUIPMENT COMPANY**  
 A HARTZELL CORPORATION COMPANY  
 AMBURN INDUSTRIAL PARK  
 TUALATIN, OREGON 97062  
 Name \_\_\_\_\_  
 Address \_\_\_\_\_  
 City \_\_\_\_\_  
 State \_\_\_\_\_ Zip \_\_\_\_\_ 010.02.7707 BM  
 \_\_\_\_\_  
 \_\_\_\_\_

## New!

### Strat Replacement Pickup

Features for the first time in such a device adjustable pole pieces for all six strings, plus unique tonal characteristics and DiMarzio Tailored Frequency Response. Our new Strat is the highest output single coil pickup of its type on the market, yet has less than 50% string pull than Fender stock pickups. Works well in any position on the guitar. Suggested retail \$49.95



## New!

### Precision Bass Replacement Pickup

Our Precision has both a rich, full bass response, as well as pure biting string tone. Features adjustable pole pieces (nickel plated). Suggested retail \$49.95

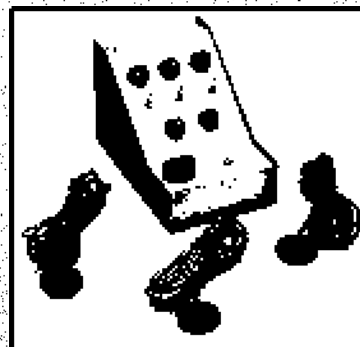


## New!

### Piano Transducer & Mixing System

Designed for use with Acoustic

pianos, our system also serves as a mixer for 2 or 3 acoustic guitars playing together. Uses three DiMarzio acoustic transducers that deliver clean, natural sound. The DiMarzio Piano System will operate into any standard guitar amp input, as well as provide enough output voltage gain to directly drive a power amp. Three inputs with volume control, master volume, two tone controls. Available with or without transducers.



# DiMarzio.

## Always ahead of the rest.

Introducing some new additions to the DiMarzio family. All different, yet with one thing in common; they were all designed to meet the demands of today's musicians. That's the way we've always designed our pickups.

And that's why we're always ahead of the rest.



For a catalog with full specifications of our new additions (including the Black Body Super, not shown here) and all our products for guitar, bass & keyboard, contact:



## DiMarzio

Musical Instrument Pickups, Inc.

643 Bay Street, Staten Island, New York 10304

Available at fine music stores throughout the U.S.

Exclusive Canadian distributor:

GHI Music Sales, 5000 Buchan St., Suite 506  
Montreal, Quebec H4P1T2

All DiMarzio equipment is manufactured in the U.S.

# MAKING A SOLID GUITAR

Part 10: by Stephen Delft

I have received a letter from R. Gearty of Cumbernauld which asks several questions about tools and materials. Although much of the information he wants has appeared at the beginning of this D.I.Y. series, Mr. Gearty's letter is typical of many which I receive, and it may be in the general interest to repeat some hints on finding suppliers.

Stentor Music are importers and trade distributors of musical instruments and certain specialised instrument-makers' tools and materials. They do *not* supply directly to the public. Almost any music shop can obtain a catalogue from them, and can order for you such things as fretwire, fingerboard blanks, neck blanks, lumps of wood for solid guitar bodies, and machine heads. Stentor also import the specialised files for dressing frets which will be mentioned in a later article. If your usual music shop is not willing to offer you this service, exercise your rights as a customer and take your business elsewhere. Alternatively, you may order most of the bits you will need for this project by post, from Albert's Music Shop, 35 Heath Road, Twickenham.

If you are making postal enquiries about supplies of scarce and/or exotic tools of materials, you are likely to be dealing either with small companies, or with companies who are not primarily set up to handle mail-order business. In either case, a stamped, addressed envelope, of appropriate size, and a simply-worded, straightforward enquiry, tend to produce the quickest replies.

If you are placing an order for goods and also making an enquiry, use two separate sheets of paper, clearly labelled 'Order', and 'Enquiry', and put your name and address on each. Your name and address should be typed, printed, or written in clear block capitals, on any postal order or enquiry.

## Wood

It is never easy to find supplies of suitable wood for making instruments. It is an unwritten rule of the general Timber Trade, that the buyer shall decide whether timber is suitable for his intended purpose. If the buyer were allowed to choose the timber which suited him, from a large and varied pile, this would not be too bad, but many timber yards will not allow small quantity customers to search through their stock.

From their point of view, they are not being unreasonable. To go through a large stack of timber, you will probably need a fork-lift truck and a driver; the amount of wood needed for a couple of guitars would probably not even cover the drivers wages.

The real problem is that general timber merchants frequently make no attempt to grade their stock in a way which is compatible with the requirements of craftsman woodworkers.

Unless you have friends in a city timber yard, you would probably do better to search

out the small country merchants, in farming areas, or near to areas of hardwood forest. I have heard some favourable reports of North Higham Sawmills near Norwich. I think they publish a stock list of woods which are difficult to obtain.

Of course, the alternative is to buy your wood from a company specialising in Instrument Makers' supplies. This may be more expensive, but (unless the 'conditions of sale' state otherwise) you can reasonably assume that the timber supplied is going to be usable. This does *not* mean that every piece of wood you receive from a specialist supplier will be perfect, or even tolerably good, and it does *not* mean that timber from a specialist supplier will always be adequately seasoned.

I have had classical guitar sides which were so 'wet' that they felt damp to the touch, *even on the outside!* However, as they had come from a reputable, specialist timber supplier, I had no difficulty in returning them. This was some years ago, but it did, at the time, raise the question of what a reputable, specialist company was doing, supplying soggy-wet wood in the first place. Wherever you buy, it pays to keep your eyes wide open.

If you want wood dry enough to use immediately, you must state this clearly on your order; Also, the climate in which the finished instrument will spend most of its time. (This includes 'indoor' climates such as Hot-air central heating). Unfortunately, most specialist suppliers are not willing to accept your order under these conditions. You will probably have to buy your wood in advance and season it yourself, like most professional guitar makers.

If you start with timber from a reputable supplier, in a condition described as 'fully air-dry' and then keep it in a normal domestic climate for about 1 year per inch of thickness you will not go far wrong. Thin panels of wood will need to be kept 'in stick'. See any book on timber seasoning.

Use narrow strips of Hardboard, a hands-breadth apart. (Hardboard is called Masonite in some countries). Blocks for necks and electric bodies can be stored in the same way, using thicker spacers. Piles of timber stored in this way should have both sides of each piece exposed to the air. Any end grain should be sealed with hot wax or old oil paint before stacking. Each pile should be topped with another row of 'sticks', a stout board, and several bricks, or similar weights.

## Kiln - Dried Wood

You may be offered wood described as 'Kiln-dried'. Kilning is a method of drying out timber more rapidly than is usually possible by leaving it to stand about, exposed to the air. It can also be used to reduce the moisture content of timber below what would be possible from air drying outside, in the average English climate.

Thus, if you must buy timber to use immediately for musical instruments or for indoor furniture, kiln-dried wood is probably a better bet than air-dried.

There is more to seasoning timber than merely adjusting the moisture content, and this may explain why many instrument makers prefer to buy air-dried wood and season it further themselves, indoors.

If any of you are planning to be instrument makers, you will have to learn to think of your supplies many years in advance of your needs. However, if you want to make one or two electric guitars, in a hurry, you cannot afford to be concerned with subtle differences in the physical properties of timbers. Kiln-dried wood is, on average, less likely to warp than inadequately air-dried wood. Probably the best thing is to buy some kilned American Mahogany to use now, and a nice slab of straight-grained Maple or Sycamore or Walnut to leave on top of the wardrobe for a few years.

Supplies for making Acoustic guitars are

becoming a little easier to obtain in England, but Electric guitar makers may discover that the usual neck blanks intended for acoustics are the wrong shape, or not long enough.

When this series started, Stentor Music had a small stock of suitable pieces for neck and body of the I.M. guitar, but they may from time to time be out of stock. Your alternative course of action is to sit down with a telephone and the local classified directory, and systematically 'phone every timber merchant and importer in the book. This is what I did when I started out in London. It took about 3 days to produce a short list of likely suppliers, and several weeks to visit them all, in between having to make a living.

In theory, Honduras Mahogany is one of the preferred woods for electric guitars, but in practice, recent shipments have been of very variable quality.

Most mahogany sold as 'Honduras' is in fact from Brazil, Peru or Chile, and is, on average, better than most of the very scarce shipments of real Honduras. Don't worry too much about the exact source as long as it is American, not African. Concentrate on choosing boards with constant grain patterns along their length. (See notes on neck plan). Canadian Maple is also hard to find, but both Maple and Mahogany may be available from timber merchants in Boat-building areas. English or Scots sycamore can usually be substituted for Maple and may be easier to find. It is a little harder to work with, and its white colour requires that you keep your hands and your tools very clean.

If there is something you need, and you can't find it on sale anywhere, ask your nearest Chamber of Commerce.

## Adhesives/Glues

Mr. Gearty wishes to know about the availability of 'Beetle' gap-filling adhesive, and of 'Zigbond' and 'Titebond' American epoxy adhesives. Let me first say that while Zigbond and Titebond are of American origin, they are certainly not epoxy adhesives.

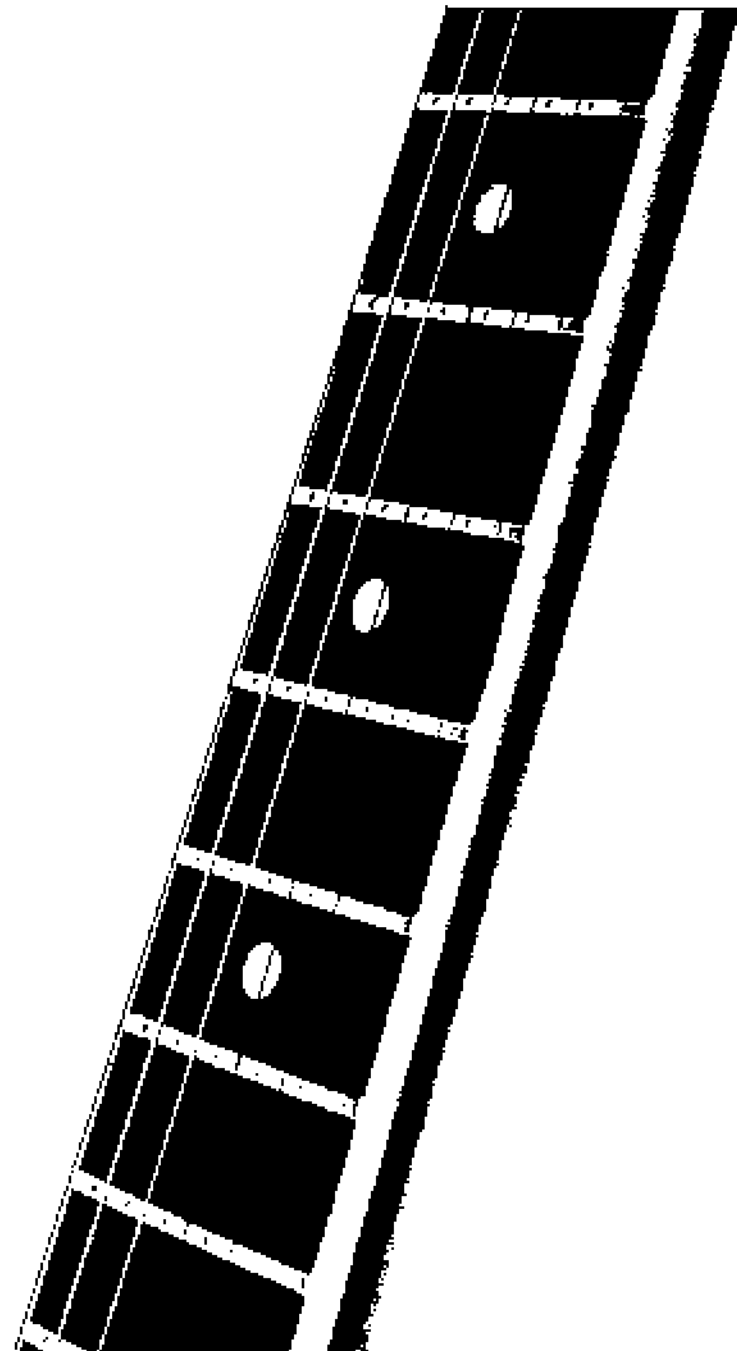
I would refer Mr. Gearty and other interested readers to one of the earlier chapters in this D.I.Y. series, which dealt with various types of adhesive. To the best of my knowledge, Titebond is not available in England — at least under that name. I have seen a similar product advertised as (Yellow) Aliphatic Resin glue 'in a Crafts magazine; I think it was the 'Woodworker'. I have tried some of this glue, which a friend ordered by post from the advertiser, and it seems to have similar properties to Titebond.

I saw only a very small pack, which was relatively expensive. It would be worth enquiring about larger and more economical packs. Zigbond is another American Yellow-coloured Aliphatic resin glue. It was at one time available from a specialist modelmakers' shop in the Holloway Road in North London and may still be on sale there. It is likely to be available from the sort of model shops which supply plans and expensive kits for making very large model aeroplanes.

There are some adhesives made in this Country (probably the best known is 'Evostik Resin-W'), which are similar to the American Aliphatic resin adhesives, but they are based on a different 'family' of resins and they have different properties when hardened. The English products are usually white in colour. I do *not* recommend any of them for general applications in guitar making and instrument repairs. (If any British manufacturer is willing to supply an adhesive with the same properties as Zigbond or Titebond, I shall be delighted to give the product some free publicity).

Beetle Gap-filling adhesive is a two-part synthetic resin which seems to contain something like wood dust to convert the liquid resin to a sticky paste. It is a superb adhesive, but as I have said before, is only available in minimum packages of something





like 10 pounds weight. A little goes a long way, and it has a limited storage life. I think the makers are called B.I.P. Chemicals. They supply huge quantities of adhesives for making such things as laminated wooden road bridges. I have not discovered any way of obtaining small quantities of this adhesive, and I do *not* think that besieging B.I.P. Chemicals with telephone calls is the right answer in this case. The ingenuity and resources of our readers constantly surprises me and I await your solutions to this problem. (Suggestions that someone should re-package the stuff, do not count, unless they *also* include the name of a distributor willing to undertake the job).

Mr. Gearty also requests a supplier of neck truss rods. It is possible to purchase ready-made truss rod assemblies, and some makers find them satisfactory. I prefer to use a different truss rod system similar to that used by Guild, Gibson and Fender. This sort of truss rod is less complicated than the assemblies which you can buy, and I think it works better, if fitted intelligently. The snag is that such truss rods have to be fitted individually to each neck and become an integral part of the neck. Most pre-fabricated assemblies, of a metal rod running in an Aluminium channel, require much less accuracy in fitting them. You just cut a slot of the right size in the neck and glue the whole thing in. For all that, I still don't like them, and if you are going to shape an entire neck and body, you can surely cut one straight accurate slot in the neck, with a little recess at each end, to suit the recommended type of truss rod. If it really bothers you, the neck plan gives a very simple alternative.

If you want to use the recommended truss rod but you can't face the metalwork, take the plans to your nearest small light-engineering firm, who should be able to make you a suitable truss rod for a modest price. It does not use any fancy materials, and if you are able to make the necessary changes to the woodwork, you could even use 3/16 inch rod and a 3/16 BSF thread. If you wish to refer to the earlier articles on making a truss-rod, I should remind you that the illustrations were, by mistake printed turned round, so as to lay on their sides. Sorry about that — just turn the page round before you look at them.

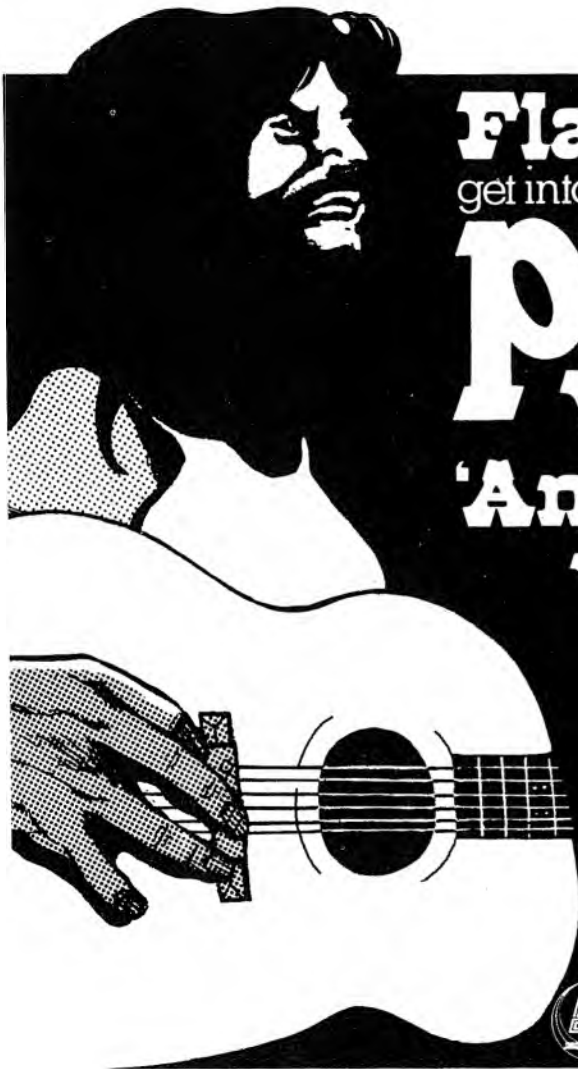
Mr. Gearty's final point concerns fretting calculations, and he may be pleased to know that I was planning to write about that subject this month, in any case.

#### **Fret Calculations.** First, the easy part

According to simple theory, all you need, to be able to position the frets on a guitar with an adjustable bridge, is the approximate string length and the factor 1.05946. (If you want to make work for yourself, the exact factor is 1.059463094, but such accuracy is neither necessary nor useful).

This rather strange number is the value of the Twelfth root of 2, which is the proportional change in string length required so that the played note goes up (or down) by one semitone. Because it is expressed as a *proportional* increase or decrease, and not as a certain number of millimetres, the same factor applies anywhere on the fingerboard. At least that is the theory: but theories, like machines, are not to be trusted.

When you hold the string down onto various frets, you change the length of the vibrating part of the string, and the note which it produces when plucked. However in pressing the string down onto the fret, you also stretch the entire string slightly, and this raises the pitch of the note slightly. (If you hold the string onto a fret and then bend it sideways, you are using the same process to sharpen the note of the 'bent' string). Unfortunately, the



**Flat Top Guitarists!**

get into

**picato**

**Western  
'American Bronze'  
wound strings**

Stateside quality, **picato** value.

Set 600 light gauge

Set 660 medium gauge

Set 612 12-string

☆ New Westerner custom gauge

**Available from your dealer now.**



General Music Strings,  
Treforest, Mid-Glamorgan.

**From cello to sheet music.  
From metronome to synthesizer.  
From Bach to beat.**

**See, hear, order.**

Exhibitors from all over the world will be showing the full range of what they have to offer for your branch. From the classical to electronic music.

Wind, bowed and plucked string instruments, percussion and keyboard instruments. Accordions and harmonicas. Electronic instruments. Amplifiers, microphones, loudspeakers. Parts and accessories. Music publications.

Whatever you as trade buyer are responsible for: the overture to a successful business year will be played in Frankfurt. At the fair that calls the tune.

**International Musical Instruments Trade Fair**

**Coupon:** Preliminary list of Exhibitors. Please send, free of charge, preliminary list of exhibitors to the address stated below:

Name \_\_\_\_\_  
Company \_\_\_\_\_ Street \_\_\_\_\_  
City \_\_\_\_\_ State + Zip Code \_\_\_\_\_

Please mail to: German-American Chamber of Commerce Inc.,  
666 Fifth Avenue, New York 10019, N.Y., Tel. (212) 5 82-77 88, Telex 23 42 09

Frankfurt  
International Fair  
26.2. - 2.3.1978



# MAKING A SOLID GUITAR

amount of stretching required to get the string down to the fret, is different for each fret position, requiring a different amount of compensation to bring the note back to what was intended. Of course, the open strings are not fretted, so they are not 'stretched', and they do not require *any* compensation for this. (I am trying to keep things as simple as possible: In fact there are at least 2 mechanisms involved, but their effects are cumulative).

In practice, it is not as bad as it seems. First, try to understand that, instead of applying roughly similar compensation to all the fret positions, and none to the nut positions, one could just as easily apply an average compensation to the nut and smaller adjustments to the fret positions. As we are only concerned with the relative distances between nut and frets, the result will be practically the same. It is true that by the second method, you will also need to shift the position of the bridge on the body by a fraction of a millimetre, but as the range of adjustment on most bridges is many times this amount, any error will be lost in the final setting up of the instrument.

So far, I have assumed that the strings are close to the frets, and the same distance away from them all along the fingerboard. Of course, a guitar set up like this would buzz and rattle if you tried to play it: you must allow more clearance between strings and frets so that the strings have room to vibrate. As a vibrating string takes up more space in the middle than at the ends, the usual arrangement is to raise the bridge-end of the string several millimetres and the nut end only a fraction of a millimetre. (There are differing opinions about this, but most players prefer the strings at a slight angle to the fingerboard, as described). This means that the string will have to be stretched more to meet the upper frets, than for the lower ones, and a further compensation is needed. There are one or two other variables concerned with string tensions and thicknesses, finger-pressure, and the shape and spacing of the frets, relative to the size and hardness of your fingertips. Any of these *could* become a critical factor under a given set of circumstances, however it is known that most guitars can be adjusted to suit most people, and there must obviously be some sort of acceptable compromise in general use.

By a fortunate coincidence, it is possible to adjust guitars to a tolerable standard of accuracy by first calculating fret positions according to theory and then shifting the bridge away from the nut by something like 1 to 5mm until the note at the 13th fret is one octave above the note at the 1st fret. This deals with everything but the open string. One must then move the nut towards the first fret, until the open string note is one octave below the note at the 12th fret. Alternatively, if you have good ears, or a pitch meter, you can set the nut so that the open string is one semitone below the first fret note, or two semitones below the second fret note.

If you try this, you will very soon discover that the optimum settings for nut and bridge

vary, both for different sets of strings, and for different strings within a set, and this is where you have to start making compromises. At this stage, things could become very complicated, so I shall introduce that useful device called 'A rule of thumb'.

For high frets, very thin strings, or excessive finger pressure, move the nut 0.8mm towards the first fret and move the bridge position 0.8mm further away from the frets. (Or if it fits your way of working better, move every fret 0.8mm towards the nut). For average electric guitars, make the same adjustments, but by only 0.5mm. This will not give perfect results, but I find it is significantly better than no compensation at all, and it should not present you with too many problems.

If you want to be perfectionist, and construct a 'staggered' nut, you will have to deal with so many non-mathematical variables that it is probably better to do the job by trial and error for each string as described above. For your guidance, the exact nut-end compensation seems to be related to the square of the clearance between the string and the first fret, plus a bit extra, and so there is little point in making fancy adjustments to the nut until it's string-slots are cut to the correct depth. Once you start this, you will discover that most fine adjustments on a guitar are inter-dependent, and I would strongly advise you to accept my rule of thumb until you have made several instruments).

The compensation required at the bridge-end depends mainly on your finger pressure, on the thickness of plain strings or the core of covered strings, and on approximately the square of the string clearance at the 12th fret.

This means that, for a very low action, the compensation is small, and similar for all strings in a set. For a high action guitar, the compensation needed is greater, and different for each string.

Fortunately, you don't have to worry about this, as the recommended bridge has an enormous range of adjustment, and should be able to deal with all but the worst intonation problems. You may wonder why guitar nuts are not made adjustable for the same reasons. In fact there *is* an adjustable nut on 'Microfrets' guitars.

Unfortunately, the concept of two inter-dependent adjustments for each string seems to defeat many guitarists, and I suspect that most Microfrets owners fail to get the best out of their instruments. A pity, because it is potentially a very good idea.

To return to this D.I.Y. project; you have a usable rule of thumb for the nut position, a bridge with enough adjustment to take care of the bridge-end, and the 12th root of 2, to five places of decimals. It only remains to put the three together. I could have reached this stage half a page earlier, but most of you would have had little idea of what I was doing, or why I was doing it.

Hopefully, you now understand some of the necessities of guitar adjustment. With a bit of luck, you may also understand why you see so many letters to Music Papers, from owners of electric guitars who have problems tuning plain third strings, around the lower frets and on the open string.

Many highly-proficient musicians have learned to cope with this problem so well that it is not apparent to the listener, but that is no reason why any player should *have* to tolerate it. For the moment, I suggest you follow my rule of thumb for nut positioning: Perhaps at some later date I shall produce a separate article, going into this subject in more detail.

## Fret Calculations

I used to calculate fret positions with logarithm tables, but pocket calculators are now fairly common, and make life easier. I am going to show how to establish fret positions for a theoretical length of 620mm on two different sorts of calculator. You will

have the figures for this project anyway, but if you can get hold of a similar calculator, you can also use the same method for other scale lengths. Unless you are used to them, try to avoid calculators which use 'Reverse Polish' notation: most of the instructions have to be entered in reverse order, and they can be a little confusing for non-mathematicians. Both the calculators which I have used are of the algebraic-entry type: you enter a problem roughly in the same order in which you would write it. To check this clear the machine and enter '99 ÷ 3 = '. If the answer is 33 you have probably got the right sort of machine. Without touching any other keys, press the = key again. If the display now reads 11, you are in clover. If it still reads 33, you are all right as long as the machine has buttons for 'Memory Store' and 'Memory Recall'. (They *may* be marked '→M' and '←M').

Some of the cheapest machines will repeat an instruction every time you press the = key, and they will make fret calculations easier for you. Many of the expensive technical calculators require separate key strokes each time, with a greater possibility of human error. However you may have access to one of this type in a school or college, and I will deal with this first. I have a Texas S.R. 50, which is fairly typical of moderately complex scientific calculators.

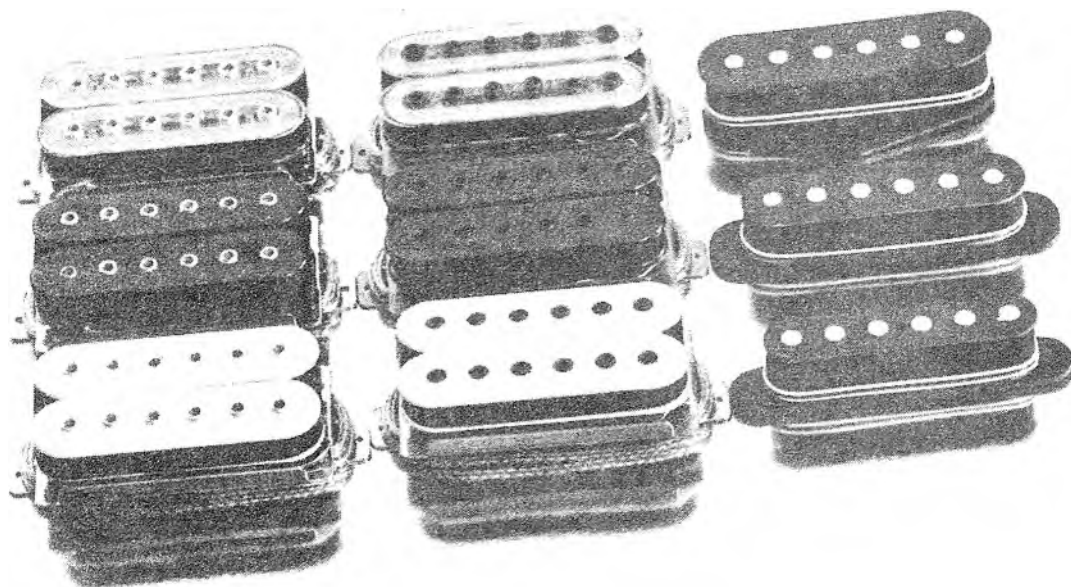
The letter and number sequences which follow, refer to the symbols shown on the keys. The entries are: 'C 2  $\sqrt[12]{}$  12 = STO C'. That puts the twelfth root of 2 in the memory. Do not switch off. Now enter '620 ÷ RCL = ' and the display should read 585.20 and some more decimals. Now enter ' ÷ RCL = ' and the display should read 552.35 and some decimals. Continue in this way, writing down the displayed figures as you go until you have the original scale length and as many display figures as the number of frets you need. (As a check, the 12th figure should be exactly 310, or may have an error of 1 in the last shown decimal place). You may substitute any desired scale length for the figure 620 given above.

The Casio 'Pocket 8 S' is typical of the sort of machine used by housewives and businessmen for simple calculations. It will not produce the 12th root of 2 for you, but I have given it already, as 1.05946. Once you have that press C,CE,CM,AC — as many as your machine has. Then the key-strokes for the Casio are: 'C 620 ÷ 1.05946 = ' and the display should be 585.20 and some decimals. Write this down and then press the = ' key again. The display reads 552.36 and some decimals. Write this down, and repeat the process until you have enough fret positions. You could hardly ask for anything easier, could you! Once again, you can insert any other scale length in place of the 620.

If neither of these work with your machine, but it *does* have memory store and recall functions, clear the machine, enter 1.05946 into the memory, and clear the display. Then enter '620 ÷ RCL = ' and continue with the rest of the instructions for the SR50. If none of these work, find another calculator. In any case it pays to use fresh batteries!

Before next month, make a table of calculated fret distances for 24 frets of a 620mm scale, including 2 places of decimals, and a second table beside it, of the same distances rounded off to one decimal place — that is, accurate to 0.1mm. Remember that 1 to 4 in the last figure is ignored. By convention, 5, and 6 to 9 are rounded 'up'. Next month, I will give a table of fret distances with which you can check your own calculations. You could just copy my figures next month, but I suggest that you learn how to do the job for yourself. I am not likely to publish fretting tables for other D.I.Y. projects, nor for the scales used on various famous instruments which some of you may wish to copy.

# SAY HELLO TO THE NEW #1



## THE MIGHTY MITE™

# SCREAMERS!

Why are they the best? Because they were designed by guitar players for guitar players. Forget what you've read about other pickups and listen to the **SCREAMERS!** Rock Solid Power. Satisfaction is unconditionally guaranteed. The **SCREAMERS!** are available in a Distortion Model (13.5K) and a Vintage Model (9.5K). Both may be ordered with split coil wiring and come in Cream, Black or Crystal Clear. Also available are Strat, Tele, P-Bass and Jazz Bass pickups. Why are they the best? Used in conjunction with our other replacement parts, you can turn any *ordinary guitar* into an *instrument of destruction*. Why are they the best? Turn your guitar into a **SCREAMER** today and tell us tomorrow!



## MIGHTY MITE™ MFG. & DIST.

PO BOX 3011

CAMARILLO, CA 93010

(805) 482-9815 484-3274

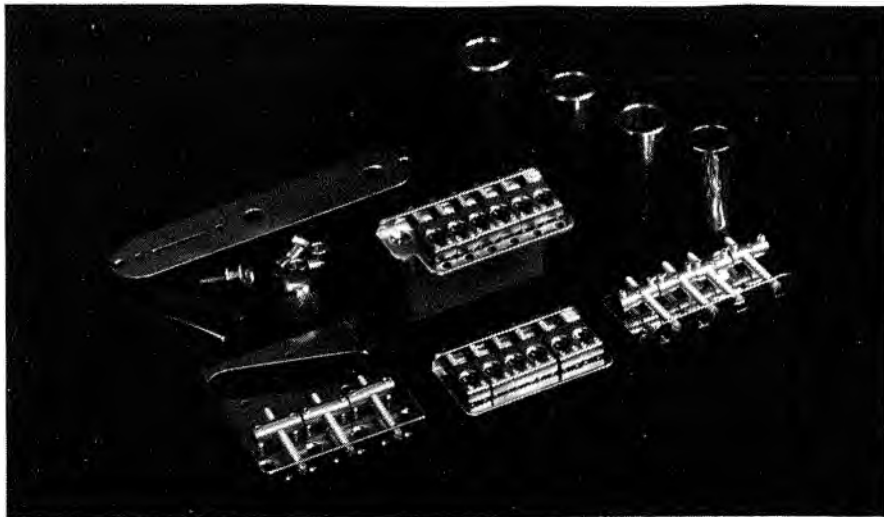
Dealer Inquiries Invited

Write for our free brochure. To hear the **SCREAMERS!**, send \$1.00 +.98 for postage and handling for our 45 RPM instrumental by the Bigbux Band.

WRITE FOR OUR COMPLETE PARTS LIST AND BROCHURE.

ASK FOR OUR PRODUCTS BY NAME AT YOUR LOCAL MUSIC STORE!

# NEW FROM MIGHTY MITE™! SOLID BRASS™



Our solid brass replacement parts and bridges add to the sustaining quality of any instrument. Available now are Mighty Mite Solid Brass Strat, Tele and P-Bass Bridges, Dome Knobs, Strap Holders, Neck Plates, Control Plates, Brass Nuts, Tension Guides, and String Inserts. Used in conjunction with our **SCREAMERS**, pickups and other parts, you can turn any *ordinary guitar* into an *instrument of destruction*. Beautiful to the eye and devastating to the ear!



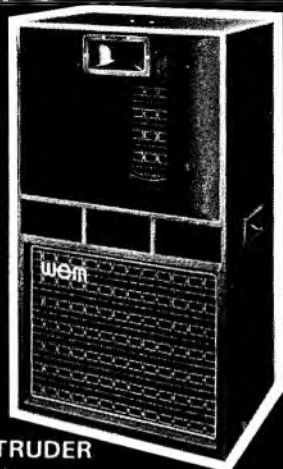
**MIGHTY MITE™ MFG. & DIST.**

PO BOX 3011  
CAMARILLO, CA 93010  
(805) 482-9815  
(805) 484-3274

ASK FOR OUR PRODUCTS BY NAME AT YOUR LOCAL MUSIC STORE!

# wem

# COPICAT ECHO



INTRUDER  
BIN



DOMINATOR  
VALVE AMPS.  
15 - 50 Watts.



**NEW** SUPER I.C.  
MODEL

- \* Multi-Echo and Reverb
- \* Four Echo Heads
- \* Four input channels
- \* Close head giving "Double Tracking" sound
- \* Echo Swell and Sustain controls
- \* Echo "Break In" facility

WATKINS ELECTRIC MUSIC. 66, OFFLEY RD. LONDON, SW9. 01-735 6568.

# There are times when a small amp can be a big advantage.

Especially if you're playing a lot of clubs or studio gigs. That's why Peavey offers a variety of compact amps designed for the guitarist who requires professional performance in a portable package.

Compare the features. Then see your Peavey Dealer for a demonstration. You'll be amazed at the big sound we've built into our smaller amps.

## **Backstage**

18 Watts RMS @ 5% THD  
Three-band equalization  
Master gain  
One 10" speaker  
Preamp out  
15"H×17"W×9¼"D

## **Pacer**

45 Watts RMS @ 5% THD  
Three-band equalization  
Master volume  
One 12" speaker  
20"H×20"W×11"D

## **Artist**

120 Watts RMS @ 5% THD.  
Automix  
Bright & normal channels  
Three-band equalization  
Reverb  
Master volume  
One 12" speaker  
17½"H×20"W×11"D



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

*"Creating Value Through Innovative Technology"*

# THE PORTABLE SOUND SYSTEM COMES OF AGE.



## 1000S

200 Watts rms  
per channel  
10 low & 10 high  
impedance inputs  
20 Hz to 20 kHz response  
Less than 0.1% THD

## 700S

120 Watts  
rms per channel  
7 low & 7 high  
impedance inputs  
20 Hz to 20 kHz response  
Less than 0.1% THD



Introducing the PA 700S and PA 1000S...professional stereo mixer/amps from Peavey. Anything a soundman can do with a multi-channel stereo mixer, two 9-Band graphic equalizers and two power amps can be done with these super versatile systems.

Features such as variable input attenuation, monitor send, high and low EQ, effects send, stereo pan and output level slider on each channel, along with two 9-Band graphic equalizers, master section, VU meters, and a complete rear patch panel including low and high impedance inputs, put you in full command of the system.

All you do is add the speakers and mix!

For complete information, see your Peavey Dealer or write us and we'll send you a free catalog.  
Peavey Electronics, Corp. / 711 A Street / Meridian, Mississippi 39301

# THE FYLDE REPORT

For many years, the top end of the acoustic guitar market has been dominated by American instruments. They were regarded as the best, and any musician worth his salt just had to play one.

However, four years ago on an uninspiring stretch of Northern coastline near Blackpool, one man started a guitar revolution against the Americans and produced what may well be Britain's answer to them.

The man is Roger Bucknall, and the instruments he makes are called Fylde guitars — named after the part of the Lancashire coastline where he lives and works.

Prior to 1972 many British folk artists played American guitars. Now Fylde has entered the arena.

Roger has been making guitars for 18 years, although he admits that his first effort was hardly playable. He said: "I was nine when I made my first guitar, it was an acoustic that I knocked together. Looking back I don't think it even played, but it was a guitar and that was the important thing.

"I was about 15 when I really started making them seriously. I would spend my holidays on them. By the time I was 18, I was making them all the time".

Roger's guitar making was the result of an interest both in music and woodwork. He always wanted to play the viola but took up the guitar and became involved in folk music.

The early guitars were made with little reference to the standard books which had been written on the subject, Roger had his own ideas on how the instrument should sound, and by trial and error began to produce good standard guitars.

This all consuming hobby continued when he went to Nottingham University on a three year course for mechanical design and engineering. He continued to make guitars as well as playing himself and running folk clubs.

A subsequent job in Southampton with a firm who design tape recorders seemed to be the turning point in his career. "I was spending more and more time on the guitars, which meant I was only going to bed in the early hours of the morning, and then had to get up and go to work".

"At that time I met a salesman who put up the money for a full-time guitar venture, so I packed in the job with the tape recorder firm".

The partnership did not work out, but it had taken him up to the Fylde coast, where he set up his base in 1973. The time spent in Southampton had proved invaluable, because he got to know many folk musicians, in particular Gordon Giltrap.

Gordon gave Roger a lot of encour-

agement and spread the word around the folk scene. This brought in regular work. Throughout this period Roger was working to improve his products, usually as a result of comments made by the musicians themselves, finding out just what they required and trying to incorporate it into the instruments.

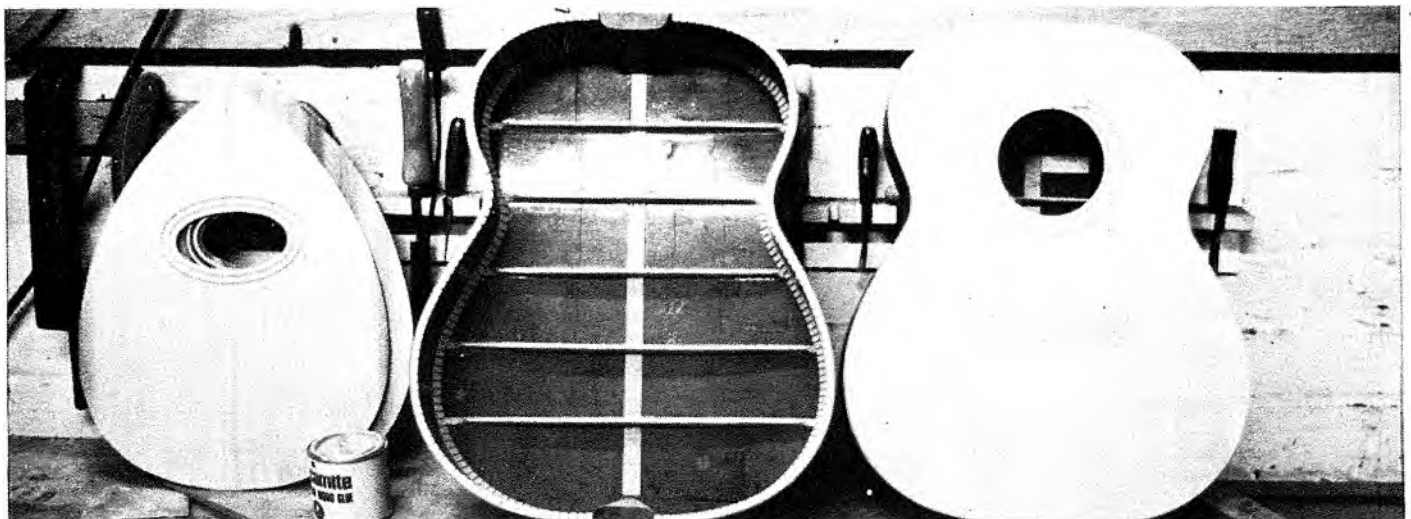
One year after moving back to the North, he transferred the business inland to Kirkham and more recently moved into an old mill in the town which is now his headquarters.

Only 600 Fylde guitars have been made, since 1973 although Roger hopes to reach the 1,000 mark in 1978. He is proud of his achievement in making a guitar which has a distinctly "English sound" and is now preferred by many of the top British folk artists.

He claims to be the only guitar maker in the country who buys logs, and takes them to his mill for the very first stage of making an instrument. Roger makes regular trips to London docks to pick up Indian Rosewood. He will tour the timber yards of Liverpool to find a handful of cedar or spruce planks which would be suitable.

Mahogany is used for the back and sides of the instruments. Spruce, or Canadian cedar is used for the tops, with ebony or rosewood for the fingerboards and lignum material called vitae for the smaller fittings such as the nut.

One feature of the Fylde workshop is the number of tools which have been specially-made by Roger to tackle particular problems. He made his first guitar with two saws, a chisel and four clamps, and although he now uses a number of machines the personal touch is still





very much in evidence.

Describing the sound of the Fylde guitar he explains: "The American guitars have more of a big booming sound, more bassy whereas our guitars have a much brighter sound spectrum. It is more for finger picking than chording. We also make wider fingerboards to make it easier to get the fingers round". Fylde guitars are also claimed to be particularly good for recording, although Roger admits that this was not a conscious development.

The first stage in the making of a Fylde guitar involves the actual cutting up of the logs and planks which is done by special saw on the premises. The wood is not simply cut down immediately to guitar size pieces, but done in stages to enable it to dry fully in between cuts.

It is then stored in a room for about one year or possibly longer depending on the type of guitar that is being made and the kind of climate it is likely to be played in.

Fylde make their guitars in batches of about 20, so each are subject to the same process at the same time. The basic back, sides and top are cut into shape and sanded, the curved sides being bent into position around a mould.

The top of the guitar, which contains the soundhole, is then carefully criss-crossed with struts. It is the position of these struts which give the guitar its distinctive sound, and much experimentation has gone into the size,

shape and depth of the ones which are used for Fylde instruments.

The assembled bodies are then sanded, finished off and left to dry in racks. Fylde have a special room where the fretboards and neck are prepared, and Roger's training as a design engineer is useful when considering the stress factors involved in the neck design.

Fylde can meet virtually any design specification or particular inlay that is required, but Roger refuses to design "gimmicky" guitars just for the sake of it. He still believes in working closely with musicians to try and find out just what they require, and is constantly looking at ways to improve his product.

He believes his own playing has suffered as a result of the ever increasing work demands, and does not even have a guitar at home although he does sometimes take one that he may be working on at home with him.

Since 1973, Roger has gathered together a handful of friends and helpers who carry out the work under his supervision. Although they are not specialist guitar makers in their own right, he feels that they understand and fit in perfectly with his way of doing things.

Bill Astley has been with Roger since 1973 and was a bank clerk with no experience of guitar making, yet the enthusiasm was there and has been channelled by Roger.

Eddie Green has been at Fylde for

2½ years before which he was an engineer with BAC. Tony Wilson comes in three days a week, and lends his experience as a guitarist in much the same way as local folk musician Dave Walters does.

Apart from making straight acoustic models, Fylde have also made mandolins, bazoukis and a few classical guitars, but not on the same scale as the acoustics. Roger has also experimented with electrics and one he made under the name, Pack Leader, is currently being used by John Miles.

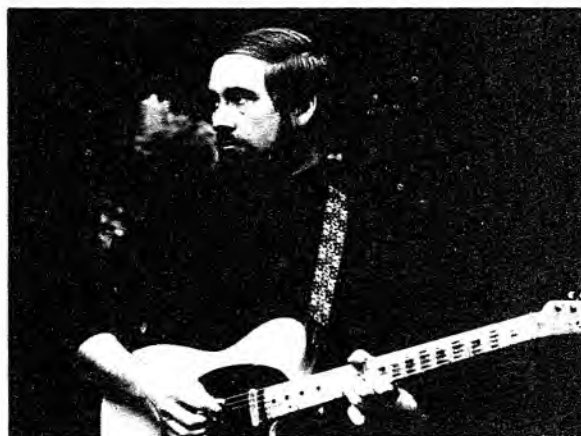
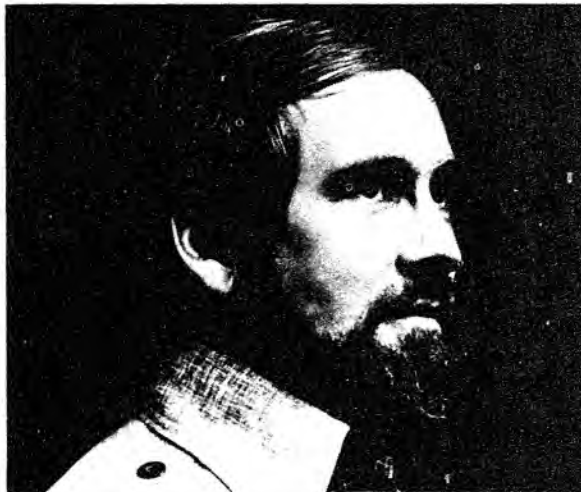
Among Roger's many ambitions, is one to produce a good English acoustic guitar for under £100. It is a market which is currently dominated by the Japanese, but he believes that a competitive English product can be made.

Fylde acoustics start at about £250, and are guaranteed for the lifetime of the purchaser. Although, they have mainly been used in the folk field, acoustic enthusiasts among the rock fraternity are beginning to take an interest. Ian Anderson of Jethro Tull recently bought a mandolin and has an acoustic on order.

To promote the guitars, a collection of regular Fylde players, including John Ranbourn, Martin Carthy and Gordon Giltrap recently came together to record an album featuring solely Roger's instruments. It is called Fylde Acoustic and is available on Trailer Records (LER 2105).



# When one of today's finest musicians needed a pickup, he picked out the finest.



See Roy Buchanan on his upcoming 1977 tour and hear his soon to be released album on Atlantic records.

When Roy Buchanan wanted to change his sound, he came to the Pickup People - DiMarzio. Roy now uses a Hamer (not pictured) equipped with two DiMarzio Super Distortion Humbuckers.

And he's not alone in his preference for DiMarzio. In fact, our pickups are endorsed by more leading musicians than any other pickups on the market.

They use DiMarzios in the guitars they record with, and in the guitars they play on stage. The same DiMarzios available to you in your store.

We're extremely proud of Roy's satisfaction with our pickups. We're certain you'll be satisfied with them, too.



For a catalog with full specifications of our products for guitar, bass & keyboards, including a complete list of endorsers, contact:



## DiMarzio

Musical Instrument Pickups, Inc.

Dept. CR, 643 Bay Street, Staten Island, New York 10304

Available at Macari's, 102 & 122 Charing Cross Road London W.C.2. and other fine music stores throughout the world.

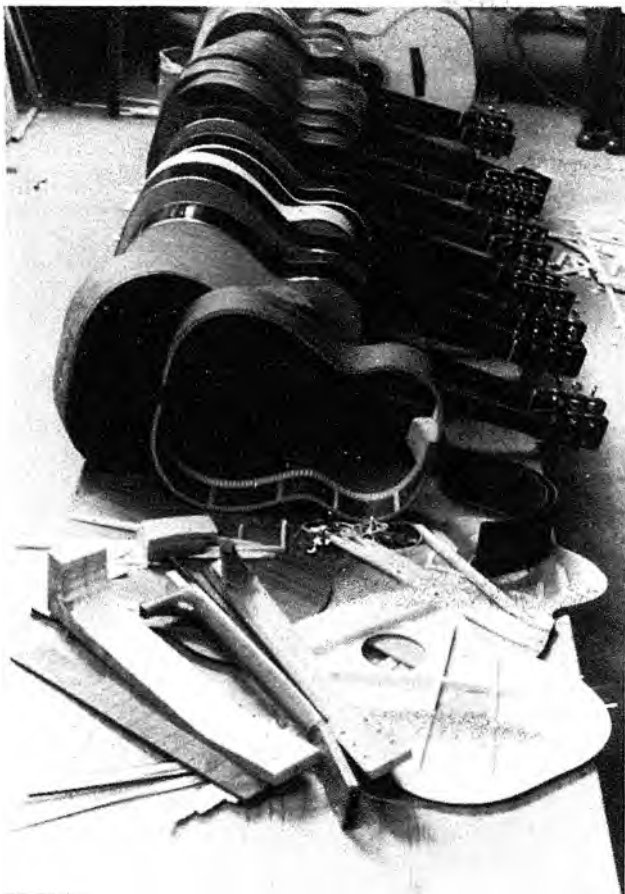
All DiMarzio equipment is manufactured in the U.S.

# Fylde

ACOUSTIC GUITARS

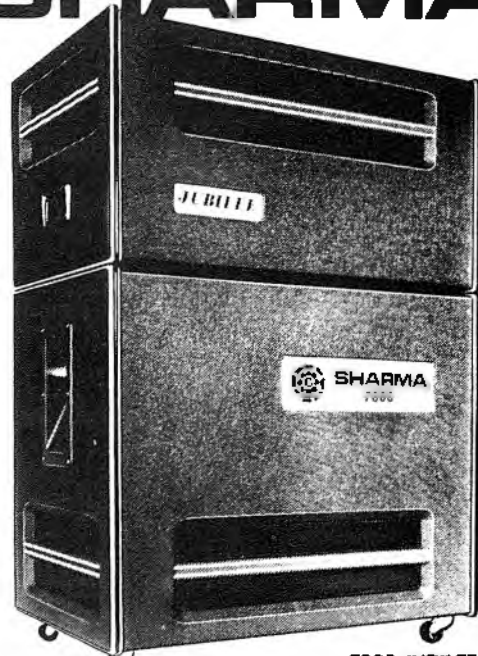
The English Guitar  
with the  
lifetime guarantee

The Best  
played by the Best



Stamp for details:-  
Fylde Instruments Ltd.,  
Progress Mill  
Orders Lane,  
Kirkham, Lancs  
Kirkham 684987

# SHARMA®



**7000 JUBILEE**  
300 watts RMS fed to four specially developed  
speakers Each with its own amplifier

*Sound Around*

SEND FOR A FREE  
BROCHURE ON OUR  
COMPLETE RANGE

**KEITH HITCHCOCK & CO**

THE MILL 1379 LINCOLN ROAD WERRINGTON PETERBOROUGH  
TEL (0733) 71913 CABLES HITCHCOCK PETERBOROUGH

# Camber cuts through!



Today's cymbals must be heard clearly, through and around the music. A drummer shouldn't have to compete with amplifiers to get the beat across.

The brightness of Camber cymbals cuts through. Sparkles over the other sounds. The right touch — in sound and feel.

Camber cymbals. In bronze, 'crystal', nickel-silver and brass. All feature a consistency rare in the cymbal world.

Check out their shimmering presence at your Camber dealer's.

for new sounds...  
**Add on a Camber**

Please send me the Camber catalog, along with free booklet, "How To Choose A Cymbal."

**CAMBER®  
CYMBAL**

101 Horton Ave.  
Lynbrook, N.Y. 11563

Name \_\_\_\_\_ I.M.1  
Address \_\_\_\_\_  
City \_\_\_\_\_  
State \_\_\_\_\_  
Zip \_\_\_\_\_

IN TOUGH WITH THE MODERN WORLD ...

# soundwave

66 VICTORIA ROAD,  
ROMFORD, ESSEX

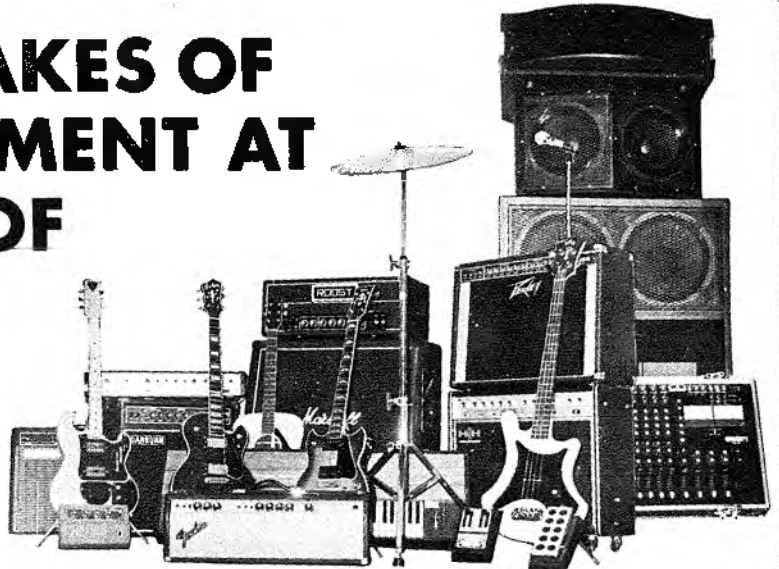
TEL: 25919

# PA TO PLECTRA

## ALL LEADING MAKES OF MUSICAL EQUIPMENT AT A FULL RANGE OF PRICES

2 MINUTES WALK FROM  
ROMFORD STATION

ALL PA SUPPLIED WITH LEADS, DI BOXES,  
MULTICORES ETC. IF REQUIRED



OPENING HOURS: 9.30 to 6.00 MONDAY TO SATURDAY—CLOSED ALL DAY THURSDAY

**LIVE**

THE ELECTRONIC BOW FOR GUITAR

The E-Bow is a product of  
**HEET SOUND PRODUCTS**  
611 Ducommun St. Los Angeles, Ca. 90012 213-667-5946  
For E-Bow Demo Cassette send 1.00 U.S.

Photo: Mike Campbell of Tom Petty and the Heartbreakers—Shelter Records

## LUTON MUSIC CENTRE LTD

### BEDFORDSHIRES LEADING MUSIC DEPARTMENT STORE 5 SHOWROOMS · 1 FOR MUSIC · 300 GUITARS 30 DRUM KITS

Always in stock:  
Premier, Pearl, Ludwig  
Tama, Rogers U.F.I.P.  
Beverly, Zildjian  
Paiste, Fender, H/H  
Gibson, Carlsbro, Maine  
Sonor & Aflyn, Orange  
Custom and other top  
names Drum Spares and  
Repair Department.



## LUTON MUSIC CENTRE LTD

114 Legrave Road, Luton, Beds.  
Tel: Luton 26826  
Part Exchange Credit & Cash



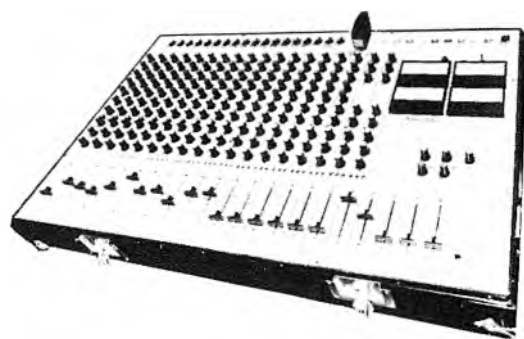
# amcron



## ONE WORD SAYS IT ALL!

The Power Amplifiers for the Professionals

## MACINNES 18/4 PA MIXER



The new 18/4 Macinnes mixer has been designed for use in high quality PA systems where reliability coupled with the need to stand up to rough usage are important. Now built into a sturdy Fibre Glass case, the 18/4 is priced at **£1,600.**

## SESCOM

- \* Mic Transformers
- \* Direct Injection Boxes
- \* Mic splitting Boxes
- \* In-Line Transformers
- \* Mic Pre-amps
- \* Active Equalisers
- \* High and Low Pass Filters
- \* Multi-Cables

*Send now for the latest Sescom Catalogue*



**MACINNES LABORATORIES LTD.**

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

**MACINNES FRANCE S.A.R.L.**

18 RUE BOTZARIS,  
PARIS 19.

Tel. 206 60 80 et 206 83 61

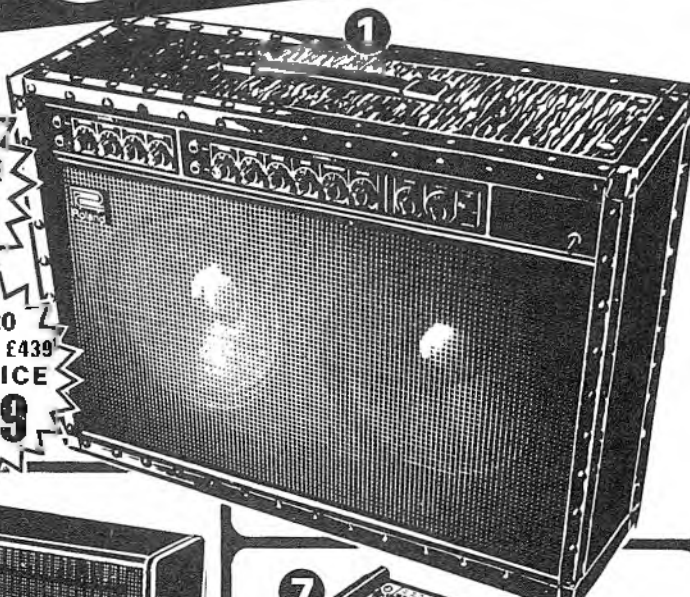
# macari's SPECIAL OFFERS

## ROLAND COMBO AMPS

Latest developments in electronics, new reverb overdrive sound and exclusive Roland Rotating vibrato sound.

JC 160  
LIST PRICE £488  
OUR PRICE  
**£389**

JC 120  
LIST PRICE £439  
OUR PRICE  
**£369**



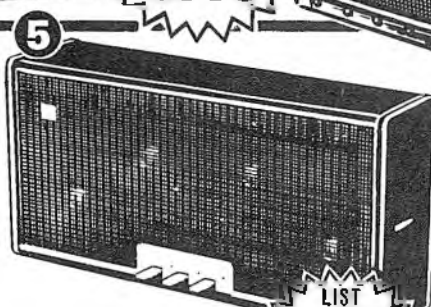
**YOU ARE INVITED TO TEST ONE  
OF THESE REMARKABLE AMPS**



LIST PRICE £1039  
OUR PRICE  
**£850**

### ROLAND MP 700

Combo piano, touch sensitive key action, complete with stand.



### ROLAND PIANO AMP SECTION

Chorus vibrato effects.

LIST PRICE £483  
OUR PRICE  
**£430**



### 101 BY ROLAND

World's best value in synthesizers. This fully independent Synthesizer can be used as a main building block in a complete Synthesizer system Studio.

LIST PRICE £457  
OUR PRICE  
**£380**

### ROLAND COMBO TYPE SYNTHI



LIST PRICE £586  
OUR PRICE  
**£470**

SH 3A easy operation but not a preset unit. Built in to suitcase for easy transport.

### 6 ROLAND ECHOS

LIST PRICE £499  
OUR PRICE  
**£425**



LIST PRICE £360  
OUR PRICE  
**£320**



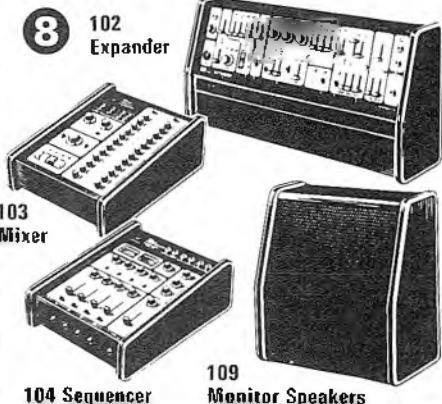
Finest units available at this price, Cassette tape, spring reverb and wide range controls.

### DIGITAL CHORUS ECHO

LIST PRICE £204  
OUR PRICE  
**£175**



### MODULES available for 101



103 Mixer

109 Monitor Speakers



LIST PRICE £956  
OUR PRICE  
**£727**

SH 5 A double oscillator Synthesizer with two envelopes noise generator, ring modulator interphase for Roland String Machine.

### ROLAND ACCESSORIES



LIST PRICE £114  
OUR PRICE  
**£98**

Boss chorus ensemble Vibrator, Tremolo, Phasing and A.D.T.



LIST PRICE £49  
OUR PRICE  
**£41**

AP2 Phaser

THEY'RE  
ALL AT

# macari's

122 CHARING CROSS ROAD  
LONDON WC2  
TELEPHONE : 836 2856

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



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

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

*D'Angelico*  
NEW YORK

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

## Goodmans for lasting pleasure



pleasure

Enjoy Goodmans speakers in your home or office. They're for the discerning ear. If you're looking for the most beautiful sounding speakers, look no further than Goodmans. They've been manufacturing the world's premier technology.

## Goodmans power range



## Goodmans

250, The Parkway, London, E15 4JH, England  
Kilburn, London, N5 2RQ, England  
P.O. Box 100, London, W1A 0AB, England

Goodmans (Overseas) Ltd, London, England, England  
1/4" 1/2" 1/4" 1/4" 1/4"

## Hummingbird: *Diamond Nights* (AMLMH 64661)

Hummingbird are a band of "musicians' musicians". Three of them, Bobby Tench (vocals/guitar), Max Middleton (keyboards) and Clive Chaman (bass), were in the second Jeff Beck Group and they are supplemented (an understatement, to say the least) by Bernard Purdie (drums) and Robert Ahwai (guitar).

The album veers between very interesting and well-executed jazz-flavoured rock and funky, formulated disco workouts. While they shine on the former, they bore on the latter. "Got My 'Led Boots' On" opens the first side with a riff borrowed from the Jeff Beck Group days and with Tench's guitar sounding uncannily like Beck. 'Pretty' Purdie really astounds on a number called "Cryin' for Love" with very tasteful drum fills.

Another nice track is "Anaconda", which starts with jungle noises and develops into a nice, jumpy rhythmic workout with Middleton and Ahwai sounding not unlike the Jan Hammer/Jeff Beck combination. "Losing You (Ain't No Doubt-About It)" is taken at a slower pace and has a very sympathetic string arrangement. Strange as it may seem, if Diana Ross ever went "progressive", this would make an ideal single for her. "Spread Your Wings" is an uptempo number with outstanding bass playing by Chaman who also saw fit to track on flutes. Unfortunately, with this combination of a disco rhythm and flute lines, the number gets to sound more like Van McCoy's "shuffle" rubbish. Generally, the musicianship on "Diamond Nights" is flawless, but the main problem would seem to be their direction, or rather lack of it.

### Eamonn Percival

*Produced by Ian Samwell and Hummingbird, engineered by Ed Thacker, recorded at A&M, Hollywood.*

## Graham Parker: "Stick To Me" (Vertigo 9102 017)

### General Comments

The trouble is I've seen Graham Parker live, and that means that any studio album he does is going to be second best. Now this is a very good record by any standards but if you've been following the "Pink Parker" from his "Howling Wind" and "Heat Treatment" records you may think his latest record is not sustaining the momentum.

What Graham Parker needs is a live album, although he does get as near as dammit a live feel on his studio records as anybody. Naturally the Rumour storms away like there is no tomorrow. God help any singer with this lot as a backing group. You have to be good with the Rumour otherwise they'd eat you alive.

One thing that worries me as a Parker fan is that the man is getting a



little too stylised in his delivery. Graham Parker has enough original talent not to need to force every word out into a how-to-sound-like-a-rock-singer accent. When it's done well it's done spontaneously and I think this time Parker is singing too much with his brain rather than his soul.

The songs are good, but not startlingly better than his earlier stuff like "Back to Schooldays", "Soul Shoes", and "Heat Treatment" which is, for me, Parker at his best. Standout tracks on "Stick to Me" are "New York Shuffle" "Watch the Moon Come Down" and "The Heat in Harlem" which has some great "street" brass a la Southside Johnny. A good album, but not the great one that Parker is going to deliver any year now.

### Musicianship

With the Rumour you don't go far wrong and here Brinsley and the Boys are in full flight. The Rumour has that special rough and ready feel which only really good rock musicians can do without sounding amateurish. The brass section adds to that special Stax soul sound that fills the album with a no-bullshit directness.

### Production

This album was reportedly redone after the original tapes had inherited intolerable noise from somewhere. This, coupled with the Nick Lowe one-take method of production, has given the album a rough and ready feel that suits the mood of the music ideally.

### Ian White

*Produced by Nick Lowe, Recorded and Mixed at Eden Studios, Chiswick.*

## Sherbet: "Photoplay" (EPC 82251)

So the Aussies made it big in the UK. It's happened before. (Remember The Chantay's in 1962?). What happens next? IN EMI Studios, Sydney, the band recorded the album to consolidate their UK success. But I don't think so. There is a gap between music from Down Under and the UK just as there is a gap between

the UK and the US. In music fashions these gaps sometime juxtapose and I thought that may have happened in the case of Sherbet, but I'm not so sure now.

It's hard to pin point the feel that makes this an Australian album: the slight over emphasis of the off-beat, the slightly too "close" harmonies, perhaps the slightly over-enthusiastic use of stereo panning that blows the whistle on a producer or engineer with insufficient dues paid. The band plays very well, but very basically. I would say they're a melodic Status Quo, but Status Quo have something very special Sherbet don't.

### Ray Hammond

*Produced by Sherbet and Richard Lush. Engineered by Richard Lush, Recorded at EMI Sydney.*

## Bob Welch: "French Kiss" (Capitol EST 11663)

### General Comments

Bob Welch used to be in one of the old Fleetwood Mac lineups when the good old English blues band went California dreaming. Welch apparently left Fleetwood Mac and bummed around Paris, going on to become the "darling" of the Beautiful People (it says here).

Anyway Welch got himself some studio time and has turned out a competent enough little album that New Musical Express would probably call Hip Easy Listening. That's not necessarily a bad thing. In this record's case it means a record of pop songs dressed up with strings with a few funky bass and guitar lines in to please the Rockers. The single "Ebony Eyes" is the standout track and shows Welch has the ability to turn out a good song. But, at the end of it all, the album slips into a uniform blandness which makes it a good record to have churning away in the background but leaves not much meat if you really want to give your ears a feast.

### Musicianship

There's obviously some star session players on this record as the playing is flawless throughout. Unfortunately there are no credits on the sleeve so I haven't a clue who is responsible for the sublime bass that snaps the songs along. The drumming too is perfect, so good in fact that it adds to the mechanical feel that prevails on many albums where you get ace session players clocking in rather than gut-hungry band players.

### Production

Pretty much flawless in this department. It is in fact the crisp and well-mixed sound that shows this up as an album that has had all the imperfections ironed out. There is some particularly nice recording of the strings which are strong without swamping everything else. I think however there is a bit too much double-tracking of Monsieur Welch's voice.

### Ian White

*No recording details.*



## **The Jam: This Is The Modern World (Polydor Super 2383 475)**

With three hit singles and this their second album, The Jam have become firmly established as one of the premier new wave/pop bands. They have managed to bring pure Sixties pop and excitement into the Seventies by good songs and good playing, yet there are signs on this album that they have the potential to progress.

The opening track "The Modern World" is a typical Jam offering, slashing guitar chords and urgent vocals all delivered with maximum energy. Unfortunately, too many of the other tracks on the album seem simply watered down versions of this first cut, and after a while the original impact is lost.

The lyrics and titles of the songs e.g. "London Girl", "London Traffic" fall into this trap, but there is a hint of better things. "Here Comes The Weekend" might well be Paul Weller's answer to Summertime Blues, here he uses a different tempo, different chords and the whole thing is rounded off with good lyrics including the old Ready Steady Go line "the weekend starts here".

"Life From A Window" continues in similar vein, echoing the Mod era, and featuring some good drumming from Rick Buckler, while "Tonight At Noon" opens with Paul Weller on acoustic guitar which is similar to the old Kinks hit "See My Friends".

This may not be the best album of the year, but it marks the progress of a very young band who show that they can write excellent pop songs when they try. If they can stick together and learn to progress with their songs, then there is every possibility that they will become one of the most enduring bands of the Seventies.

**David Lawrenson**

*Produced by Vic Smith and Chris Parry  
Engineered by Vic Smith.*

## **Krazy Kat: Troubled Air (Mountain TOPC 5009)**

One of the most underrated bands around, Krazy Kat deserve to be giant and this album explains why. It's a far better outing than their debut LP "China Seas". Their harmonies are more upfront and the overall sound is much more powerful. The title track has an eerie synth line over the top of very dramatic chord sequences. The first couple of lines are sung in octaves before a really strong block harmony comes in. "Rock Of Ages" drags a little bit, it's a comparatively weak song for Krazy Kat but has a nice guitar solo. "Gotta Get Back" is a fairly straightforward pop song but played with guts and, with its straight 4/4 rhythm, sounds like an early Beach Boys out-take. "Carousel" is an interesting song with a very complex melody over an intricate descending chord progression. Tony Ferguson's lead

vocals are tastefully flanged to add to the atmosphere. Side one closes with "A Lot To Learn" written by keyboardist Harry MacDonald and is a slow ballad with a great acoustic guitar sound. The melody is nothing short of beautiful with a great wall of Beach Boys-type harmony behind.

"Shady Sabrina" opens the second side and demonstrates how to use harmonies imaginatively. Half of the chorus is two-part, the second half features a solid four-part. One of the best numbers appears next - "Shame" which is also one of their most popular stage numbers. It's heavy and powerful and the last line of the chorus is sung in an ascending five-part "chime" harmony. KK's sense of dynamics is demonstrated in the middle of the song where it fades down to just bass and guitar before the rest of the band thunder in. Harmony in Krazy Kat is not confined to the vocals. Towards the end of "Shame", guitarists Grahame White and Tony Ferguson team up with nice harmony interplay on the guitars.

"Don't Let Me Down" is next, a driving number with a jump rhythm and a tight backing, it also features a nice, warm close harmony on the chorus. The album closes with a re-recording of "Melody Maker", the original version of which appeared on the B-side of the band's first single. This one's much more powerful and gutsier and features great lyrics: "Who is it thinks that a 24 track studio can turn a piece of shit into art? Melody Maker".

That's it, then. A great album from a great band, a band who are surely destined for bigger things. The sooner the better.

**Eamonn Percival**

*Produced by Robin Cable and Krazy Kat. Engineered by Robin Cable and John Kelly. Recorded at CBS, Audio International and Air.*

## **Uriah Heep: Innocent Victim (Bronze BRON 504)**

This is Heep's 13th album but only the second featuring newcomers John Lewton (vocals) and Trevor Bolder (bass). A lot of it is what we've come to expect from Heep - powerful, driving rock with vibrato-laden harmonies over the top. However, that's not all there is to the band. Within their heavy rock framework, some really strong melodies appear, especially on Ken Hensley's songs. Hensley (keyboards/guitar) is a much underrated songwriter but not too many people to realise this. Maybe it's because Heep still have this image of headshaking, powerhouse rock with little substance. This is a totally wrong impression. The band have matured from album to album and this maturity makes itself apparent in their new numbers.

Hensley's "Illusion" is a beautiful sensitive work and is one of my favourite tracks on the album. Traditional Heep fare is also in evidence on this album. Guitarist Mick Box teamed up with Lawton to write "Free 'n' Easy", a driving number on the lines of their earlier "Easy Living". There's a great guitar break in the middle of the number with Box on one channel, answered by Hensley's slide guitar on the other. Destined to be another Heep show-stopper.

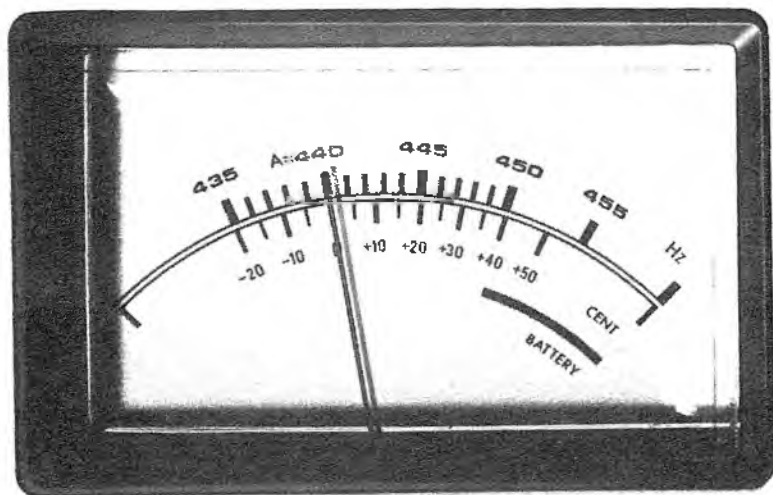
Overall, the sound on the album is good, with the exception of the drums which, to my mind, sound too "dead" and muffled. However, it's a nice album - Heep fans will love it, non-Heep fans should give it a listen, too.

**Eamonn Percival**

*Produced by Gerry Bron and Ken Hensley. Recorded at Roundhouse Studios.*



*Krazy Kat*



**KORG** Tuning Standard



**So, Music Is Your Thing.**



Tuning Standard WT-10A

**Can You SEE The Correct Pitch?**

True harmony is totally dependent upon each instrument being correctly tuned. Even a slight deviation in pitch could spell disaster. KORG WT-10A Tuning Standard not only emits your desired standard tone, the indicator needle lets you read the pitch of individual musical instruments directly off the dial. Eliminate guesswork. SEE and HEAR the correct pitch. Compact, power-conserving dial-indicator type with built-in mike/speaker system. AC/DC operation. Batteries good for 30 hours of continuous use. Ideal for outdoor sessions.

Input/output plugs allow direct tuning of electric guitar, etc., or amplification of standard pitch for large groups.

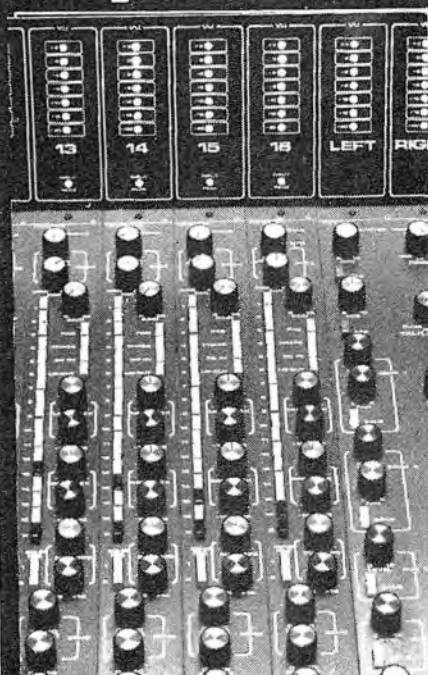
Visual tuning can be the ideal supplement to ear training. You SEE the results.

\*Reading range: 6 Octaves \*Sound range: 3 Octaves \*Note: 12 Tempered Chromatic Scale \*Accuracy: Relative error for Standard Frequency  $\pm 1$  Cent (Chromatic Interval = 100 Cents) \*Dimensions: 79" x 41" x 20" \*Weight: 680g Accessories: Carrying Case, AC Adaptor



KEIO ELECTRONIC LABORATORY CORP., Tokyo, Japan  
 ROSE MORRIS & CO. LTD. 32, Gordon House Road, London, NW5 1NE (011287-5151)  
 M. HOHNER LTD. 39-45 Coldharbour Lane, London, SE5 9NR (01733-4411-4)  
 UNICORD, INC. 75 Frost Street, Westbury, New York, N.Y. 11590 (516)333-9100  
 ERIKSON MUSIC REG'D. 7750 Trans Canada Hwy, St. Laurent, Que., H4T1A5, Canada (514)731-7567  
 CBS MUSICAL INSTY. 10 Carter St., Lidcombe, N.S.W. 2041, Australia (02)6485833

**16 x 16  
for  
\$7,950!**



**tangent  
3216**

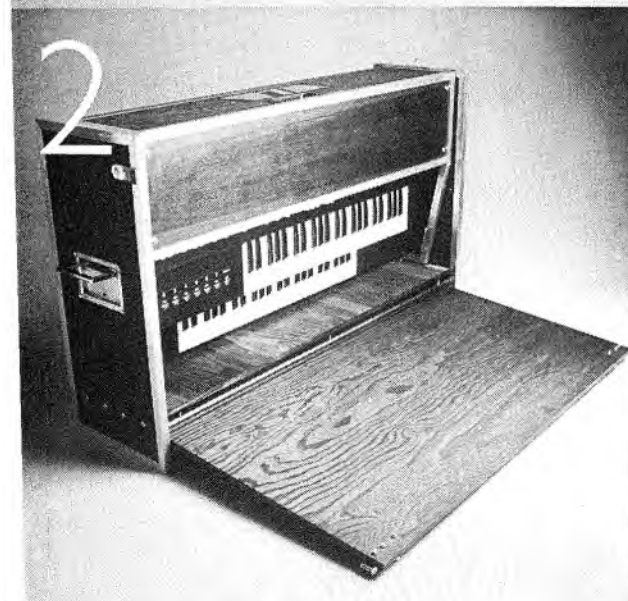
Tangent proudly announces the 3216, an exciting and versatile professional console!

Boasting a clean, transparent sound, the 3216 offers expansive flexibility and powerful equalization.

And the 3216 has the same silent operation as the other Tangent consoles hailed as "astonishingly quiet" by *Modern Recording!*

Call or write today for complete information.

**tangent**  
 musical engineering  
 2810 south 24th street  
 phoenix, arizona 85034  
 602-267-2853



The HIT is ready to play in just ten seconds.

# SOUNDS JUST RIGHT.

The human ear is a demanding master. That's why it's necessary to understand the hearing physiology before you can make a good musical instrument.

At WLM we do.

In making electronic organs the supreme judge for us is the human ear. The sound produced by an electronic organ may be clear and clean, but if it fails to excite, lacking sparkle and character, it can't win the audience.

This is how we produce the distinctive WLM Sound:

1) To begin with, all WLM organs are based on use of electronic sine-wave generators, which make for a perfectly clear and flawless sound.

2) Our sound also contains consonants, not just vowels, which means an exciting and pleasing sound impression.

3) All WLM organs are drawbar-operated. All registers — even percussion and attack — can be controlled just as you want.

4) WLM organs also carry practical presets. A light touch of your finger enables you to use seven fixed sound combinations.

5) Advanced techniques give the sound as perfect a foundation as can be obtained.

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

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

The BEAT is a beautifully designed cabinet organ which is suitable for homes, clubs, restaurants, theatres and other public places. It has the same advanced technology as the HIT and furthermore an amplifier, Leslie and rhythm unit.

## Meet WLM's impressive new organs.

Mail this coupon for our new brochure giving full details about the distinctive WLM Sound Concept.

Name

Address

Representative in the U.K.:  
Richard Brown Distribution, The Minster, Harbidges Lane,  
Long Buckby, Northants, England.

Representative in Australia:  
The Music Distillery, 503 Pittwater Road, Brookvale,  
N.S.W., Australia 2100

**WLM**

Manufacturer WLM-Organ Oy, SF-03600 Karkkila, Finland

# Junkshun SUPERSOUND

## GOES LIVE

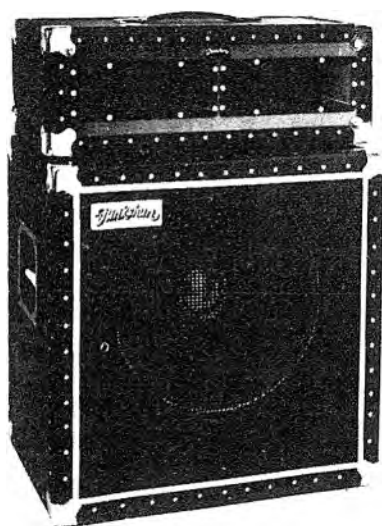
Get that on stage feel using your choice of all the leading makes of backline equipment all set up for you on our own inter-shop stage. To give you that live gig environment. Now you'll know what it sounds like on the night.

### FLIGHT CABS

now in  
fibre laminated wood; with fibre  
angle rivetted on all edges  
Robust

Durable

Professional



Beautiful  
100 watt  
Foster twin horn  
enclosure \*  
£64.50 inc.  
100 watt Celestion  
15" reflex enclosure  
PA/Disco \*  
£132.25 inc.

125 watt heavy duty  
Powercell version  
£159.00 inc.

### MASSIVE DISCOUNTS

For cash on selected lines whilst stocks last e.g.

Fender Tele R.N.	£200 excl.
Fender Strat R.N.	£230 excl.
Fender Prec. Bass R.N.	£210 excl.
Fender Twin Reverb	£300 excl.
Gibson S.G. Standard	£320 excl.
Gibson S.I. Nat. Satin	£290 excl.
Gibson Grabber 3 s/burst	£315 excl.
Gibson S.G. Standard S.H.	£250 excl.

All keyboards 10% minimum discount  
Yamaha . Roland . Elka  
\*20% off Zildjian Cymbals.

**GUARANTEED REPAIRS . CREDIT . PART EXCHANGE . HIRE . GOODS BOUGHT CASH**

WELL WORTH A VISIT

ASK A PROFESSIONAL

COFFEE 5p

ADVICE FREE

158, 160, 162, 164 & 166 WELLINGBOROUGH ROAD, NORTHAMPTON (0604) 34100

# ★ DEALER OF THE MONTH ★

When Doug Marriott decided that he wasn't going to make a career out of being a musician, it proved to be a milestone for the Northampton music scene. He was determined to stay involved in music and decided to channel all his efforts into developing a music store which would be the best in the area.

In April, 1977 he realised that ambition with the opening of the new Funkshun store in Wellingborough Road, Northampton. Doug explained how he turned an interest in music into a highly successful business.

"My brother was a musician and had been playing since an early age, I started following him around and taking an interest in things. I played a bit of piano, but after a while realised that I could not make music a profession.

"I then became a pro DJ for about three years from the age of 18, working with some of the top DJ's. I also used to have an equipment hire service for other DJ's".

"Eventually, I got together with my brother, and we decided to open up a small music shop just down the road from our present one".

That first shop was stocked with both new and secondhand equipment, relying heavily on local musicians and friends to spread the word in the hope that it would prosper.

In fact Doug started the business with just £1,700 and it took about three years to become established, existing for most of that time on a shoestring. Gradually it began to grow until he found it necessary to extend upstairs and eventually into the adjoining upstairs premises.

Doug remembers space being a real problem in the early days: "In the old shop, it was so small that on Saturdays you would find 15 to 20 people queuing up to get in.

"All the equipment was stacked up to the roof, so to get a guitar down we had to climb over masses of speakers and amps. People used to fall about laughing at us".

"We realised five years ago that we would take the plunge and get bigger premises if they became available. When this present shop became empty, we decided to stick our necks out and go for it".

The new premises are literally only a stone's throw from the original shop, but a world away in respect of size and facilities. The amount of display space is enormous, the store being divided into five separate areas each housing a particular range of equipment.

## FUNKSHUN



One of the areas has been set up like a stage, complete with drums, back-line amps, speakers and a PA. This is to give local musicians or groups who are considering buying equipment the chance to set up and test it under stage conditions. This involves much swopping about of equipment, but Doug reckons it is all part of the service.

He is careful not to pressure people who are buying equipment, because he realises that choosing the right instrument and paying out a lot of money is a painstaking business.

"People don't just see something in the shop and come straight in to buy it. More often than not they will look in the window as they are walking past a few times, then come in and try it. It's only after their second or third visit that they'll decide whether that is what they want".

"We are quite happy to let people play the instruments and guys we know will often spend all afternoon in here".

In keeping with the personal touch, there is a handy coffee bar which is rapidly becoming a meeting place for local musicians and anyone looking for a gig. Funkshun also run a hire service and the shop is open on Sunday mornings, which is basically for returning gear, although it is useful if you happen to need a new set of strings or a new lead for a Sunday night gig.

There is an impressive range of equipment in the store with all the top names well represented. Doug has the agency for Carlsbro equipment and a good stock of Custom Sound but the list is really end-

less. Yamaha equipment comes in for special praise because Doug believes that they are 10 years ahead of any other instruments and amplifiers.

There are wall-to-wall stocks of both acoustic and electric guitars including a number of interesting secondhand models. Yamaha dominate the keyboards and synthesizer section, while Doug's interest in good disco systems is catered for in a special disco show-room.

The constant drive for improvement and progression has led to the development of Funkshun's own "Flight" cabinets which are proving to be best-sellers. This is due to be followed in the near future by a range of Funkshun amplifiers which are destined to enhance the store's reputation even further. Mention must also be made of their repair service, which they believe is second to none.

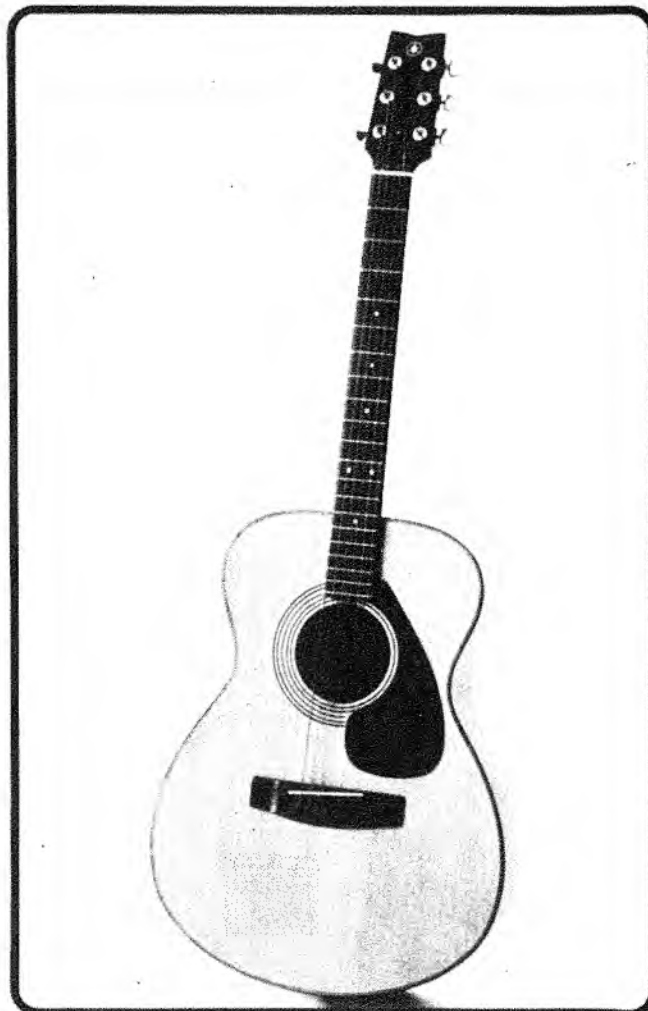
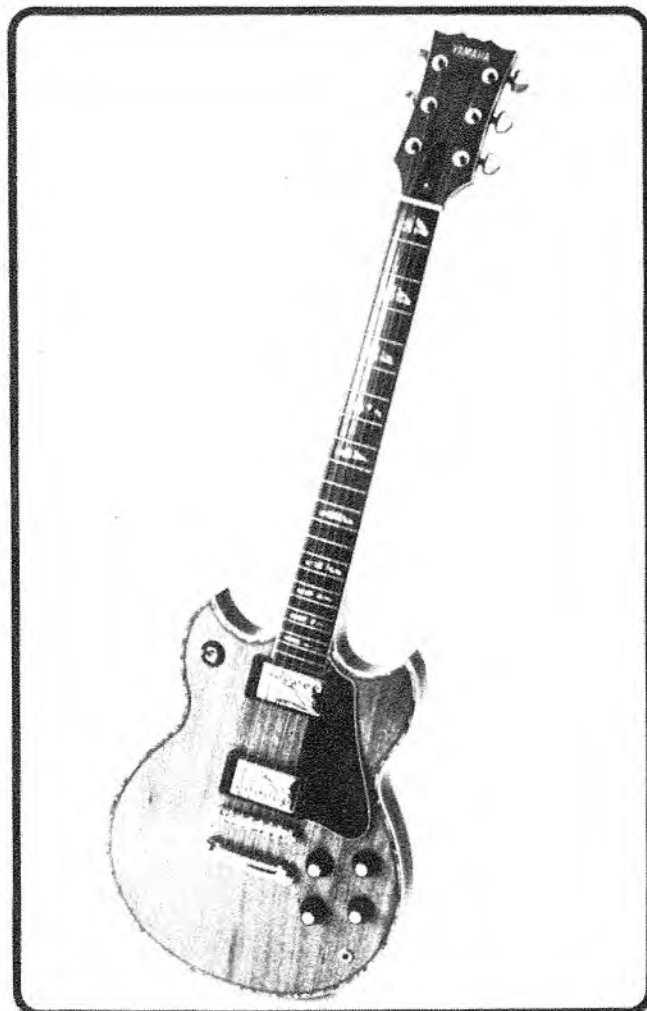
In making a success of Funkshun, Doug acknowledges the part played by brother Loz, a highly respected and well-known musician who is much in demand. Recently, another old friend and respected local musician, Gary Tyla, was brought in to help in the running of the store.

Funkshun is already one of the largest music stores in the Midlands, and Doug freely admits that Northampton alone cannot support such a venture, so he is appealing to the whole Midlands area and sees no reason why it should not become one of the best music stores in the country. There would be many who believe that he has succeeded already.

*Junkshun*

SUPERSOUND

dealer of the month



STOCKS

**YAMAHA**

gear of the year

IN THE HEART OF  
CARLSBRO COUNTRY...



On the phasing, flanging and  
vibrato bands. Full continuous  
range of harmonically related  
frequency responses to give  
triple and rotary sound effects  
and modulation effects.  
Rotary control is featured  
on bands. Double and triple  
plus an over switch, a manual  
bypass and foot selector.



**FUNKSHUN**  
158-166 Wellingborough Road,  
Northampton O604-34100

# ROLAND RANGE

## FUNKSHUN SUPER SOUND

158-166 Wellingborough Road  
Northampton O604-34100

- Roland Pianos: EP20, EP30
- Roland Synths: SH1000, SH2000,  
SH3A, SH5  
System 100
- Roland Strings: RS 202



- call in and give yourself an experience.

# Minns

**DISTRIBUTORS LIMITED**  
387/389 Lincoln Road, Peterborough  
Peterborough (0733) 61830 60256

Suppliers of CLOUD, ORION, FENN, AMP, PULSAR,  
OPTIKINETICS, PLAYSAFE and many  
more sound and lighting products to



Northampton's leading music retailer

# Pat Chapman

Music Instruments Ltd

31/33 SIDCUP HILL, SIDCUP, KENT, 01 300 9668/3838  
H.P./P.Ex. OPEN 10-6. 1/2 Day THUR. Eves. (082 584)626

**YAMAHA**  
**HIWATT**  
**KUSTOM**  
**MARSHALL**

A SELECTION OF  
SECONDHAND GEAR  
ALWAYS IN STOCK

➔ ALL EQUIPMENT & INSTRUMENTS  
BOUGHT FOR CASH! ➔

## This pickup is no one night stand.

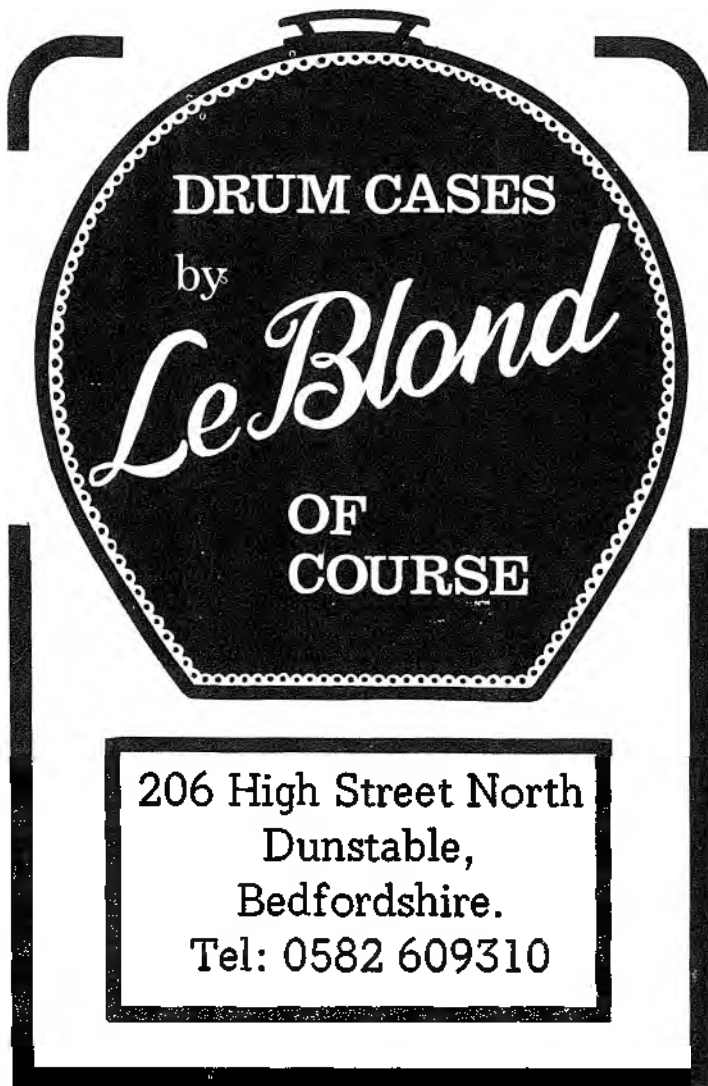
DiMarzio, the Pickup People, bring  
you a T-shirt for all seasons — and  
reasons. Whenever you feel the urge for  
a pickup, just put it on.

An attractive beige shirt with  
bright orange embroidery. Available in small,  
medium or large.

From DiMarzio, manufacturer of the finest  
products for guitar, bass & keyboard.

Send check or money order (no cash) for  
\$6.99, plus \$10 handling & postage to:

**DiMarzio**  
Musical Instrument Pickups, Ltd.  
Dept. 208  
643 Bay St., Staten Island, New York 11563  
N.Y. state residents add 8% sales tax



**DRUM CASES**  
by  
*Le Blond*  
**OF COURSE**

206 High Street North  
Dunstable,  
Bedfordshire.  
Tel: 0582 609310

## The Miyazawa Flute

### The Professional Choice\*

The MIYAZAWA flute is produced under the most stringent quality control. With unexcelled craftsmanship and renowned reliability, its proven performance is attested to by flautists around the world. Play it once, and you'll settle for nothing less.

#### Main Stockists

Sanderson & Taylor Ltd.	Edinburgh
Rushworth's Music House Ltd.	Liverpool
Yardleys Ltd.	Birmingham
Forsyth Bros. Ltd.	Manchester
Chappell Music Centre Ltd.	London W.1.
Bath Music Centre Ltd.	Bath
Stanley Toulson Musical Instruments Ltd.	Farnborough Kent
Eddie Moor's Music Ltd.	Bournemouth
R. S. Kitchen Ltd.	Leeds

\* "... they are the best flutes that I have encountered, they are beautifully made and have a fine sound with good intonation"

David P. Haslam L.R.A.M.  
Principal Flautist Northern Sinfonia Orchestra



Fletcher, Coppock & Newman Ltd  
Morley Road, Tonbridge, Kent, TN9 1RA  
Tel: Tonbridge(0732) 366421

# BIG NAMES

## Go to ABC

Names like Denny Laine, Gilbert O'Sullivan, Hot Chocolate, 10cc, Camel, Boomtown Rats, Jam, Tony Britten (Cliff Richard's guitarist) and many more. Big name or small, you'll get the best service in the business whether you're spending 50p or £500.

### Historic Sale

the first in our history! starts 28th December - through January

SOME TYPICAL BARGAINS:-

ABC COLUMNS 2 x 12 200 watt only £125

PEAVEY CLASSIC 2 x 12 50 watt reverb and autotomix £267 £231

MAINE PA 170 200 watt reverb and graphic £289 £250

H/H Studio 50 combo  
£160 £145

H/H VS Musician  
£160 £152



MA 100 Best value PA £172 only £155

WURLITZER EP200 with built in amp £623 £499

MARSHALL 100 watt amp with overload £119.95 only £100

YAMAHA SG2000 superb guitar in case £589 £499

YAMAHA SG1500 £489 £399

IBANEZ ARTIST superb guitar with case £363 £275

MUSIC MAN 2 x 1265 combo  
£471 £410

MUSIC MAN Guitars and basses  
£433 £399



LOADS MORE GEAR IN THE SALE AT RIDICULOUSLY LOW PRICES

# ABC music

CARLSBRO, H/H, MAINE, MARSHALL, MUSICMAN, MXR, PEAVEY, PREMIER, YAMAHA, YAMAHA SG GUITARS  
now in stock plus hundreds of secondhand bargains

- Best after sales & repair service
  - Easy, no deposit credit terms
  - Highest p/exchange allowances
  - Written guarantee with all used gear
  - Big selection of sheet music & accessories
- TRY OUR MAIL ORDER AND EXPORT SERVICE (15 minutes from Heathrow Airport)

14-16 High Street, Addlestone, Surrey. Tel: Weybridge (97) 40139/54877



# Wakeman on Moog



Rick Wakeman, arguably the best keyboard player rock music ever produced, lives Moog.

On stage, he surrounds himself with enough Moog gear to fill a small warehouse.

Off stage, he can often be seen at the elbow of the legendary Dr. Albert. In fact, Rick put in a few constructive words or two when the

good doctor was breathing life into his revolutionary Polymoog.

On record, Rick has released what we like to think is the world's greatest collection of Moog demonstrations.

When you listen to the magic of Wakeman, you listen to the magic of Moog.

**moog**

**The power and the glory**

Another quality product from  
Norlin Music (UK) Ltd.,  
Woolpack Lane, Braintree, Essex.  
Telephone: (0376) 21911.

**Norlin**



# Snobs, pigeonholes and Gay Gordons

by Mike Evans

In this second column for International Musician, Musicians' Union Rock organiser Mike Evans responds to the debate that has been carrying on in our pages for the past two months. The argument is that Rock musicians who perform for the sake of the music are a different breed to the cabaret circuit bands who reproduce records for the benefit of an audience.

The age-old problem of versatility versus specialisation has reared its head again.

While there is a particular audience for rock bands — just as there is to a lesser extent for jazz, country, folk and whatever — the fact is that there's also a huge market for the all-purpose variety that cabaret bands can provide.

And clearly the level of technical adaptability needed to play "anything from the Gay Gordons to Rock Around the Clock" is not a necessary pre-requisite for yer straight ahead blues 'n' boogie band — though it would be useful to bear in mind that the versatility of a Carpenters rarely produces the virtuosity of a Clapton, a case of 'jack of all trades master of none'.

But there's a lot of anti-cabaret snobishness among run-of-the-mill rock groups who aren't likely to produce a Clapton either, not in a million years. Unfortunately some cabaret musicians blow their case by making the same

mistake themselves, pigeonholing entire sections of fellow-musicians in such a way that can only perpetuate the 'permanent rift' they claim to deplore.

Some of these bands seem to have a very narrow view of what constitutes a 'Rock Group', dealing in stereotypes that reveal their own considerable prejudice — Accusations like: "equipment likely to be on tick" (so what?), "plenty of time to spare" (i.e. it's their job, not a weekend hobby), "looking like a bunch of refugees". The picture painted seems rather out of date anyway, "three deafening numbers each lasting twenty minutes with mumbled announcements and ten minute tuning up sessions between" certainly doesn't sound like the Motors or Meal Ticket, Darts or the Damned, or hundreds of other rock bands gigging round the country at the moment. Lots of rock outfits have also been known to "comb their hair, dress up in matching suits and pay some attention to their audience" from the Beaties through to the Jam.

Having said all that, the argument is welcome in so much as it draws attention to that oft-despised area of musical work that many groups are part of. It is music as work that the Musicians Union is concerned with, whether on a part-time basis or the often make-it-or-break-it involvement of a full-time group. Rifts and barriers between players of various kinds are only counter-productive to musicians in general. In no way can we discriminate between musicians over what they play, how many times a week they happen to play it, or how well they play it for that matter. In the final analysis we're all doing various kinds of work, fulfilling different needs, on

the same 'side of the fence' in the multi-million pound music industry.

As Rock/Group Organiser with the MU, I am particularly conscious of the variety and differences in just this end of the music business. The archetypal cabaret outfit are in many ways an extension of the early sixties beat scene, when pop groups (and most 'rock' groups were then considered 'pop') who had graduated — often via a hit record — from the cellar clubs, became a part of the established variety scene, playing ball-rooms, cabaret, and even summer seasons and pantomimes. Many names like the Rockin' Berries and the Fourmost still work that circuit most successfully to this day.

Of course the rockers who chose to be more purist about their music soon found the show-biz life pretty limiting, and no doubt that same scene found them pretty limited too; and over the years the only similarities that have persisted are perhaps in the instrumentation and equipment side, they are all part of today's electric pop/rock scene. A journal like International Musician, if it is aimed at all types of players in this broad field, should help bring those players a little closer together.

In the face of lost work opportunities, as with the excessive use of discos, once again we're all on the same side of the fence. As the only organisation that actively represents all types of working musicians, the MU is constantly making sure we Keep Music Live wherever possible. If you're not a member, help us — and your 37,000 fellow musicians across the country who are — by joining right away, whatever style you play.

## Phoenix amplification dealers

### London

W1 Sounds, Shaftesbury Ave.  
WC2F, D & H Music, Charing Cross Rd.  
W12 Maurice Plaquet, Shepherds Bush  
W13 Tempo, Ealing.  
E11 Freedmans, Leytonstone.  
N17 Nth London Organs, Tottenham.  
SE13 S Eastern Entertainments, Lewisham.  
SW17 Session Music, Tooting.

Barnesley Kitchens  
Bath Assembly Music  
Bexhill-on-Sea Birds  
Birmingham Yardleys  
Blackpool Music Stores  
Boscombe Eddie Moor's Music  
Bradford Kitchens  
Brentwood Soundwave  
Bristol John Hines  
Bury St. Edmunds Albert Ballam  
Canterbury Socodi  
Dudley Modern Music  
Exeter Greenhalgh Music  
Fleet Kingfisher Music  
Guildford Andertons  
Hanley/Stoke-on-Trent Chatfields

Helston Tottles Music Shop  
Hereford Picton Music  
Hove/Brighton Southern Music  
Huddersfield Dandelion Disco  
Hull Cornells  
Ipswich Albert Ballam  
Launceston Tottles Music Shop  
Leeds Kitchens  
Leicester Sound Pad  
Liverpool Frank Hesty  
Lowestoft Morlings  
Luton Luton Music Centre  
Maidenhead The Sound House  
Maidstone Sharon Studios  
Manchester A.I. Music  
Mansfield Carlbro Sound  
Middlesborough Cleveland Music  
Newcastle Rock City Music-Co.  
Norwich Cookes Band Instruments  
Oxford Taphouse & Sons  
Portsmouth Courtney & Walker  
Reading Rumbelows  
Salisbury Mitchell Music  
Scarborough B. Dean  
Sheffield Johnsons Soundaround

Southend Chris Stevens Music  
Sunderland White Sound Equipment  
Tunbridge Wells Sharons Music  
Wallasey Rumbelows/Strothers  
Winchester Whitwams  
Scotland  
Aberdeen Bruce Miller  
Bathgate Music Box  
Glasgow McCormacks Music  
Nth. Ireland  
Belfast Marcus Musical Instruments

Wales  
Carmarthen Picton Music  
Cardiff Sound Centre  
Merthyr Picton Music  
Newport Sound Centre  
Swansea Picton Music  
Tredegar Sound Centre  
Eire  
Dublin McCullough Piggott  
Isle of Man Island Music Centre

**SALES + SERVICE**  
Phoenix is only available from these dealers who have the experience and facilities to sell and service quality amps



Valves  
Solid State + Master Volume  
-the best of all worlds, so

## ...for the 80's it is Phoenix

Few makers of amps seemed to have moved out of the leather-cloth covered wooden box syndrome despite the dramatic advances in styles, techniques, materials and electronics in the last 20 years.

Phoenix jumps ahead with its new styling, new materials and new electronics to produce an exceptional new sound range. When you see and hear Phoenix, you will agree it is the amp of the 1980's.

For your protection Phoenix is patented, registered and the design is copyright so nobody can pretend to be Phoenix!

**And our confidence in Phoenix enables us to give you a two year guarantee.**

Visit your Phoenix dealer now . . . and test the Phoenix for yourself.

**Phoenix HAS THE GENUINE  
VALVE PRE-AMP FOR THAT  
'REAL MEATY' VALVE SOUND**



## Phoenix features

- Genuine valve preamp for 'real meaty' valve sound
- Two completely independent input channels
- High power 100 watt transistorised power amp
- Extra inputs and outputs for effects units
- Integral storage space for cables and leads
- Lightweight, hardwearing, virtually unbreakable case in structural plastics.
- Speaker cabinets available to 'mate' with amp  
Model PHS1 2x12" Model PHS2 1x15"  
(Both units: 8 ohms 120 watts rms)

manufactured by  
**British Music Strings Ltd.,**  
Pontygwindy Industrial Estate,  
Caerphilly, Wales, U.K.

# market report

# GUILD

Guild are one of the few companies who have established a high reputation in both the acoustic and electric guitar fields. Although neither the oldest or the largest guitar manufacturers in the world, their products have, nevertheless, become firm favourites with many musicians.

Guild began making guitars in the early Fifties in New York. As word of their superb hand craftsmanship began to spread, so they began to compete with the older established top quality guitar makers.

The guitars really began to take off in the Sixties with the revival of folk music. The company quickly realised the demand for steel strung flat tops and introduced the F-50, D-50, D-40 and F-210. Guild were also aware of the growing importance of rock and roll.

Acoustic-electrics were among the first instruments Guild ever built, but these were deep-body jazz guitars and rock and roll guitarists wanted a thin hollow bodied electric. It was then that they introduced the Starfire, and went on to produce a whole range of top quality electrics like the Thunderbird, Polara and Jet Star.

Guild have continued to grow with the music industry and have learned to cater for its many and varied requirements. It has become one of the top names in the world of guitar makers, and is constantly widening and improving its range to keep pace with modern developments.

The flat-top six and 12-strings really need no introduction but there is also an impressive range of classical guitars. Guild have recently introduced a new electric range which is proving extremely popular.

## dealer list

1. Mr. G. Gray, J.G. Windows Ltd., 1/7 Central Arcade, Newcastle-upon-Tyne.
2. Pete Watson, White Custom Sound, 3 Albion Place, Sunderland, County Durham.
3. Mike Coombs, Wholmes Ltd., 292 High Street, Croydon, Surrey.
4. Alan Hopkins, Wishers Ltd., 77/79 Osnaston Road, Derby.
5. Keith Woodcock, Carlsbro Sound Centre, 5/7 Station Street, Mansfield, Notts.
6. Martin Lawrie, Rumbelows Ltd., 141/143 Friar Street, Reading, Berks.
7. Martin, Rock City Music Co. Ltd., 48 The Cloth Market, Newcastle-upon-Tyne.
8. Peter Bird, Rock Island, 10 Waterloo Street, Oldham, Lancashire.
9. Steve Wright, Ron's Music Shop Ltd., 39 Pioneer Market, Ilford, Greater London.
10. John Walker, Socodi, 9 The Friars, Canterbury, Kent.
11. Bob Dewhurst, Sound Advice Installations Ltd., 2 Regent Street, Coppull, Nr. Chorley, Lancashire.
12. Dennis Stansell, Soundpad, 64 London Road, Leicester.
13. Melvyn, Southern Musical Exchange, 34 Waterlook Street, Hove, East Sussex.
14. Mr. Ray Stiles, Len Stiles Musical Instruments, 264/6 Lewisham High Street, London SE13.
15. David Payne, Swindon Guitar Centre, 26 Victoria Road, Swindon.
16. John Cooper, Telecomms, 189 London Road, North End, Portsmouth.
17. Colin Fisher, Kingfisher Music, 20 Kings Road, Fleet, Hants.
18. Dave Mansfield, Loughborough Music Centre, 18 The Rushes, Loughborough, Leics.
19. Jack McKenzie, Modern Music, 30 Castle Hill, Dudley, Worcs.
20. Paul Hunt, The Music Box, 9 Chapel Street, Bridlington, N. Humberside.
21. Dennis Fowler, Free 'N' Easy' 57 High Street, Hemel Hempstead, Herts.
22. Anthony Cooper, Al Music, 88 Oxford Street, Manchester 1.
23. Tim Gentle, Tim Gentle, 14/20 London Road, Leigh-on-Sea, Essex.
24. Bob Hall, Bob Hall Musical, 218 Durham Road, Gateshead, Tyne and Wear.
25. John Howarth, Harker and Howarth Ltd., 28/32 Churchgate, Bolton, Lancashire.
26. Rick Harrison, Harrison's Music Ground, Station Road, Stainforth, Dunscroft, Doncaster, South Yorkshire.
27. Pat Rodgers, Hermitage Organ Centre, 35/36 Hermitage Road, Hitchin, Herts.
28. Bernard Michaelson, Frank Hesty Ltd., 62 Stanley Street, Liverpool.
29. Barry Lane, Jimz Music, 83 Bargates, Christchurch, Hants.
30. Andy Simmons, Keyboard Harmony Ltd., 82 High Street, Radhill, Surrey.
31. Chris Hodgkinson, ABC Music, 14/16 High Street, Addlestone, Surrey.
32. John Balaam, Albert Balaam Music, 69 St. Matthews Street, Ipswich.
33. John Beeby, John Beeby's Music Place, 132 Crouch Hill, Hornsey, London N8.
34. Edmund Jones, Chappell Piano Company, 50 New Bond Street, London W1.
35. Jim Holdsworth, Chingford Group Gear, 242 Chingford Mount Road, Chingford, London E4.
36. Mr. Harrison, Cleveland Music, 19/21 Cleveland Square, Cleveland Centre, Middlesborough.
37. John Orr, Curly Music Ltd., 58 Stanley Street, Liverpool.
38. Paul Tebbutt, Fiddlers Green Music, 1 Chepstow Road, Evington Road, Leicester.

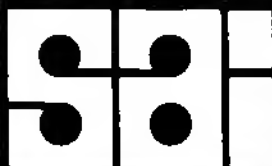
## DO YOU CONSIDER THAT GUILD GUITARS ARE GOOD VALUE FOR MONEY?

1. Yes, most definitely.
2. Yes, excellent.
3. Excellent, the best.
4. For acoustics there is nothing better.
5. Yes.
6. Yes, definitely. Excellent.
7. Yes.
8. Yes, considering they are hand made.
9. Yes.
10. Certainly.
11. Yes, very reliable — good finish.
12. Yes.
13. Very good — excellent.
14. Yes they are.
15. Excellent, really good.
16. Yes, excellent.
17. Yes, no doubt about it.
18. Yes, excellent.
19. Yes.
20. Yes.
21. Yes.
22. Yes.
23. Very good value for money.
24. Yes.
25. Very good.
26. Fair value for money, the flat tops have got a good name.
27. Yes, very good.
28. Very good, excellent.
29. Extremely good value.
30. Extremely.
31. For American guitars, give very good value for money.
32. Yes, compared with other quality American makes.
33. Yes, very.
34. Superb.
35. Yes.
36. Yes, extremely good value.
37. Yes I do, particularly the bass range.
38. The best new guitar you can buy.



## DO GUILD GUITARS REQUIRE MUCH SETTING UP WHEN THEY ARRIVE?

1. Generally speaking they are set up very well to suit the most discerning guitarist, but if approached we endeavour to re-set, within reason, to individual taste with a splendid back up from Guild.
2. No, not really.
3. Virtually none.
4. No.
5. No.
6. Have not had to set any.
7. No, none at all.
8. Very little.
9. Not at all.
10. No.
11. Very well set up.
12. No.
13. Never, none at all.
14. Not really, but we do set to our own personal requirements.
15. Sometimes the acoustics are a little bit out, but that could be just a market preference, just minor things.
16. No — playable when they arrive, but can be improved. The nut tends to be high.
17. Rarely.
18. Guild will set them up if you ask them, but they are mostly OK.
19. No, not at all.
20. Not often.
21. The acoustics are set up before they arrive, but we do set up the electrics.
22. Depends on the model, some come through set up but usually don't require much.
23. Very little.
24. Not often, require some.
25. No.
26. The newer ones don't at all.
27. Some do, very often action-wise, sometimes it is high.
28. No.
29. No, no problems.
30. Electrics, very little on acoustics, the action usually needs to be taken down.
31. Had a few problems with the action on some of the early acoustics, but the later ones have improved considerably.
32. No, have had to do little or none.
33. No, especially the new electrics.
34. No more than any other good quality guitars.
35. None at all.
36. Not normally.
37. No.
38. No, none at all.



**powers your performance!**

SAI Ltd., Regent St., Coppull, Lancs.  
0257-791645/791163

**Special Offers on**

# Guild Guitars

	Rec Retail Price	S.A.I. Price incl. VAT
Guild B301 Bass	£298.17	£249
Guild S100	£349.00	£299
Guild F40 Acoustic Blonde	£427.14	£379
Guild D25 Acoustic Cherry	£279.61	£249
Guild Sidebender Strings SL/XL/RL		£2.73

**ACCESS, BARCLAYCARD & HFC TRUST FINANCE**  
mags, coffee, easy parking, servicing, exchange.

**Late openings Mon & Wed till 8pm**

# Guild

AND ALL THAT IS BEST

## AT JIMZ

83 BARGATES CHRISTCHURCH  
BOURNEMOUTH  
020-15-71270

## Tim Gentle Music

1420 LONDON ROAD, LEIGH-ON-SEA, ESSEX.  
TEL: SOUTHEND 72926

### SOUTHEND'S LEADING MUSIC SHOP

Stockists of:- *Guild* Gibson, Fender, Travis Bean, Musicman, Peavey, Ibanez, Echo, Kasuga, HH, Roost, Ass, Lab Series, Marshall, JBL, Darburn, Pearl, etc. etc.  
Wide range of strings, pickups, mics, cases, pedals, guitars & amp spares, etc. Always in stock. Flight cases made to order.

*Our coffee may be lousy, but the gear we got is great, if you can't make it 10 to 6, we'll stay behind and wait.*

OPEN MON-SAT 10am-6pm UNLESS OTHERWISE ARRANGED.

# DOWN UNDER



Keyboard Harmony Ltd  
82 High Street Redhill  
Surrey RH1 1SG

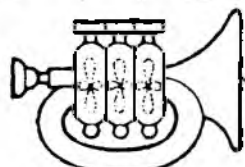
Telephone  
Redhill

68821

Speedy Mail Order Service  
to your door

## for Guild

### Acoustic and Electric Guitars



## Len Stiles

FOR THE FINEST SELECTION OF ACOUSTIC GUITARS

FEATURING *Guild* FLATOPS

D35NT	£302	F20SB	£212
NATURAL SPRUCE TOP MAHOGANY SIDES & BACK		SUNBURST TOP MAHOGANY SIDES & BACK	

LEN STILES Musical Instruments Ltd  
262-266 Lewisham High St, London S.E.13  
01-690 2958

## Get into... *Guild* at Windows

Main dealers with almost the full range from one of the most highly respected makers.

Lots and lots of other fine products INCLUDING Music-Man, Custom-Sound, Marshall, Guild, Ibanez, Gibson, Logan, Korg, Hohner, Crumar, Morley, MXF, Electro-Harmonix.

Plus our amazing Fender Deal Strats, Teles, Basses, Twin-Reverbs Rhodes. Pianos.

At probably the keenest prices in the North East!

Also a vast selection of budget price instruments and accessories.

Part-exchange welcome

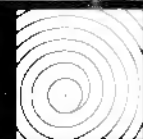
Self-financed HP terms, with pleasure

Friendly people

And a first class after Sales Service

Thats

## WINDOWS OF THE ARCADE



1/7 Central Arcade (by Grey's Monument)  
Newcastle upon Tyne. Tel: 21356

Music, Musical Instruments, Hi Fi, Television, Records & Cassettes

# ROCK CITY

48 Cloth Market  
Newcastle (0632) 24175

*Guild* GUITARS

## UNITE in the NORTH!

To bring you the musician some of the best guitars on the market.

Guild B301 basses, S300A guitars with Di Marzio pickups plus full range of acoustics all in stock.

We also have a fantastic range of Gibsons from £385 Fenders from £227, Kramers from £310 John Birch from £296, Yamaha electrics from £311 Music Man Stingrays from £372, Music Man Basses from £384. Shergolds from £176 plus a full range of acoustics including Yamaha, Fender, Antoria, Hondo, Gibson, Capok, Montana, La Haru plus many second-hand guitar bargains.

**ALL IN THE BIGGEST GUITAR DEN IN THE NORTH**

All our prices exclude VAT

ONLY  
10% H.P.  
DEPOSIT

DEAR ROCK CITY, I ONLY WANT THE BEST SO SEND ME  
DETAILS OF ..... TO (NAME) .....  
ADDRESS) ..... I WILL BE PAYING CASH .....  
BY H.P. (ONLY 10% DEPI) .... THE AGE OF MY GUARANTOR  
IF I AM UNDER 21 IS .....  
REMEMBER DELIVERY TO YOUR DOOR IS FREE IN U.K.

## THE MUSIC BOX SOUND SENSE

9 CHAPEL STREET,  
BRINDLINGTON, EAST YORKS  
TEL: BRINDLINGTON 70366

LARGE SELECTION OF

*Guild*

ALSO ELECTRIC GUITARS & AMPLIFIERS

OTHER AMPLIFICATION IN STOCK

PEAVEY, MARSHALL, FENDER, C.M.I.

ELECTRIC GUITARS BY

C.M.I., YAMAHA, FENDER, GUILD

EFFECTS PEDALS & ACCESSORIES

DRUMS BY

TAMA, HAMER, OLYMPIC, SLINGERLAND

AND ALL DRUM SPARES

ELECTRONIC ORGANS - ALL MAKES

BARCLAYCARD & ACCESS WELCOME

## BOB HALL MUSICAL INSTRUMENTS

*Guild* GUITAR STOCKIST

- \*Brass, Woodwind, Keyboards etc supplied
- \*Gibson Star Dealer
- \*Selmer Agent Speciale
- \*Fender, Boosey & Hawkes, Carlsbro, Marshall etc in stock
- \*Generous Discount for cash or 10% deposit financial scheme

218 DURHAM RD, GATESHEAD, TYNE & WEAR, NE8 4JR  
(0632) 782343

## Ron's Music Shop

39 PIONEER MARKET, ILFORD LANE, ILFORD, ESSEX

EAST LONDON'S *Guild* AND  
madeira STOCKISTS

COME AND TRY THE AMAZING GUILD B301 BASS  
ONLY £289.00 INCLUDING VAT

GIBSON, FENDER, IBANEZ, RICKENBACKER  
OVATION GUITAR STOCKISTS  
KORG AND HOHNER KEYBOARD, MARSHALL AMPLIFICATION  
H.P., BARCLAYCARD, ACCESS, PART EXCHANGE WELCOME

Tel: 01-478 2292

## Hiddlers Green Music

1 Chepstow Rd,  
Evington Rd, Leicester.  
Tel: Leics 735570  
Prop: Paul A. Tebbutt

Guild Guitars  
always in stock

S/H guitars in stock, by  
Guild, Martin, Fylde  
Gibson A2 mandolin Vega Whyte  
Laydie 5 st. Banjo Dobro circa  
1935 Martin UKE.



Specialist in Acoustic Folk Instruments

## SOUTHERN MUSIC

34 WATERLOO STREET, HOVE, SUSSEX  
BUY-SWOP-SELL-NEW + USED GROUP GEAR

Always in Stock

*Guild*

THE BETTER QUALITY AMERICAN GUITAR

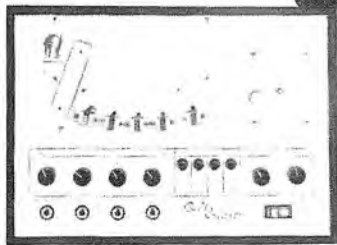


Barclaycard + Access welcome + credit service

Brighton (0273) 733387



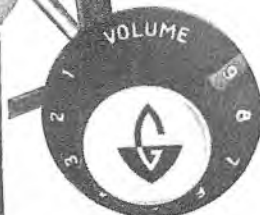
**get  
into  
Guild  
accessories**



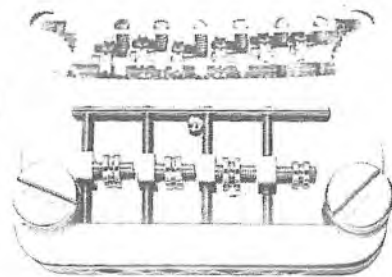
Guild Copicat Echo Unit



Round or Flat Bass Strings



Control Knobs



Bridges & Tailpieces



Cleaner/Polish



Capos



Switches



Guitar Cords



Straps Of All Kinds



Flat-Top/Acoustic Guitar Strings



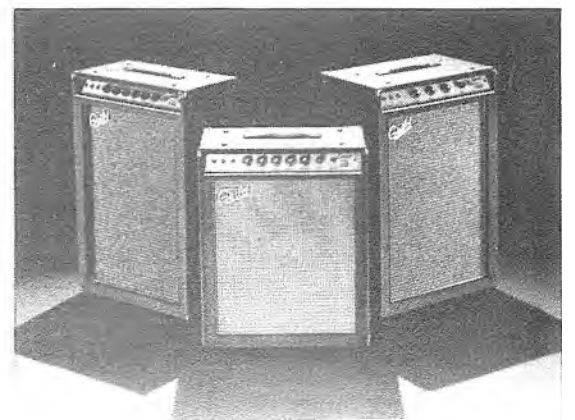
HH Echo Unit



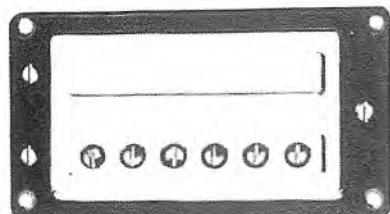
Picks



Electric/Acoustic Guitar Strings



Amplifiers



Guitar & Bass Pick-Ups



Polishing Cloth



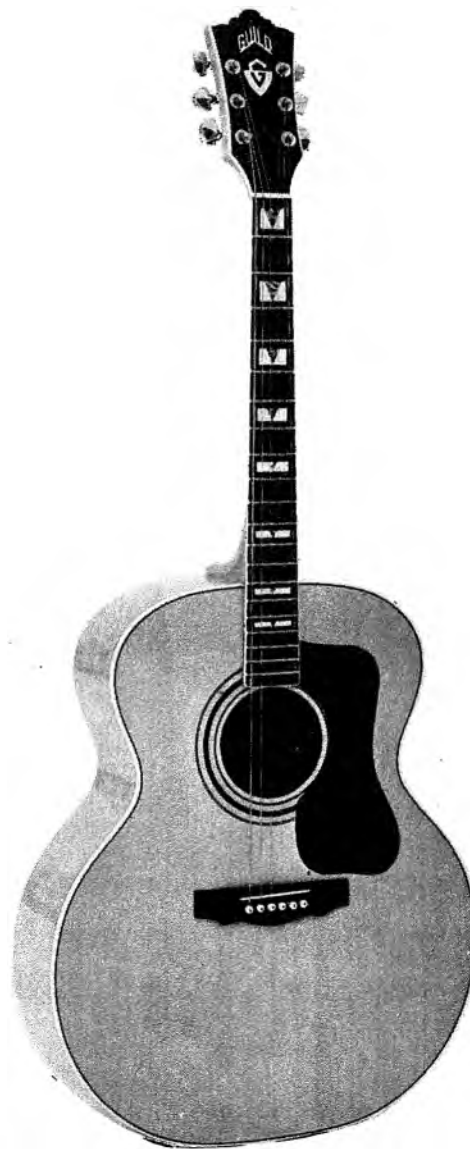
Classic Guitar Strings

**Guild** Get all the facts on our complete line of accessories. Send for free catalog (#C-100R) Guild Musical, 225 W. Grand St., Elizabeth, NJ 07202. Don't just re-string it, Guild!



## HOW MANY GUILD GUITARS DO YOU SELL IN A MONTH?

1. Usually four.
2. Four to six.
3. Varies.
4. It varies.
5. Varies.
6. One.
7. One.
8. Two.
9. Varies.
10. One.
11. One.
12. Two.
13. Two to three.
14. An average of four.
15. A couple.
16. Only recently got them but about two a month.
17. Three.
18. One a month.
19. Two a month.
20. One.
21. It is early days, but no more than two.
22. It varies.
23. It varies.
24. Varies.
25. One.
26. One.
27. Two to three a year.
28. A dozen.
29. One or two.
30. Since the new guitars and basses came out, about five a month.
31. It varies.
32. Varies.
33. Two to three.
34. Sales justify large stocks.
35. Three.
36. Two.
37. Haven't had them in stock very long – two and rising.
38. One.



## WHAT IS THE MOST FREQUENT CRITICISM OF GUILD GUITARS?

1. Up to now, haven't been faced with any common complaint.
2. None.
3. Balance in the solids. They seem to be neck heavy. The basses are hard to get hold of.
4. None at all.
5. No common criticisms.
6. Difficult to dampen the strings with the wrist on the bass.
7. Have not had any.
8. At the moment not had any.
9. As yet no criticism.
10. Not had any.
11. They could be more ambitious, could afford to expand their range. We have had less trouble with the ones we have sold than other guitars.
12. Nothing in particular.
13. None – not had any.
14. None at all.
15. Not had any.
16. Only criticism would be one of aesthetics. The tail-piece seems to be out of character with the rest of the guitar. Also, the string tension is not really adjustable, because the tail piece is anchored solidly.
17. None.
18. Not really had any.
19. None really.
20. No particular criticism.
21. Perhaps the name still isn't quite established.
22. The machine heads on some of the cheaper models are sometimes a let down.
23. Can't think of any.
24. Nothing at all.
25. None in particular.
26. Possibly re-sale value, not going to be worth as much as a Gibson. Do not hold their re-sale value.
27. High action.
28. Aren't any.
29. None.
30. Nothing in particular.
31. Little criticism of the acoustics.
32. Can't think of any.
33. Acoustics none – electrics, shape of the body.
34. Very few, but some say the acoustic necks are too narrow. The new electrics are very good, the basses are superb.
35. None.
36. Difficulty in obtain them.
37. Delivery.
38. You either like the sound or you don't.

# BOOSEY & HAWKES (ELECTROSONICS) PROUDLY ANNOUNCE...

## The New *Cavendish* Portable II



# £995 INC VAT.

**Specification**  
2 44-note keyboards  
13-note Pedalboard  
Easily assembled/  
dismantled  
8 Upper keyboard  
tonebars  
4 lower keyboard  
tonebars  
Pedal tonebar  
incorporating  
16' bourdon and  
8' flute and bass  
guitar  
**Animation**  
Rotor on  
Rotor slow/fast  
Vibrato on

Vibrato slow/fast  
Delay Vibrato  
**Special Features —  
Upper keyboard**  
Viola  
Violin  
String ensemble  
Percussion 4' 2 3/4  
1%  
Repeat  
**Special Features —  
Lower keyboard**  
Piano  
Piano solo  
Clavichord  
Spinetta  
Decay short/long  
Strings to lower

**Slider controls**  
Piano volume  
Reverberation  
Pedal sustain  
Percussion decay  
Percussion volume  
Repeat speed  
**String section**  
Volume  
Decay  
Sustain  
**Connections**  
9 pin outlet socket  
Strings outlet jack  
socket  
Piano outlet jack  
socket  
Input socket

Output socket  
Headphone outlet  
socket  
**Approximate  
Dimensions**  
44" w. (110 cms.)  
27 1/2" d. (68 cms.)  
40" h. (100 cms.)  
**Approximate Weight**  
125 lbs. (57 kilos)  
**Tone Cabinet (not  
included)**  
"Sonorous" speakers  
601 and 602 are  
recommended for  
use with the  
CAVENDISH  
PORTABLE II

Boosey & Hawkes (Electrosonics) Ltd., 4 Brick Knoll Park,  
Ashley Road, St. Albans, Herts. Telephone: St. Albans 60191.

A Member of the Boosey & Hawkes Group.



SEE IT AT YOUR  
CAVENDISH DEALER  
TODAY

# Introducing Guild S-300.

## It's Loaded with Surprises!

New body shape. 24-fret neck. Wide-fret curved ebony fingerboard. Schaller machines. Phase switch. Plus a choice of double pick-ups to give you the sound you're after.

On the S-300D (illustrated), DiMarzio PAF and Super Distortion Humbuckers are standard. Or you can have Guild Double Humbucking Pick-Ups on the same guitar (Model S-300).

Either way, you'll be playing one of the most impressive new electrics around. And that shouldn't be a surprise, because it's a Guild.

**Guild**  
MADE IN U.S.A.



IN U.S.A.: Guild Guitars, 225 West Grand Street, Elizabeth, New Jersey 07202, U.S.A.  
Phones—(201) 351-3002 • (212) 227-5390. TELEX 138711 GUILD ELIZ A Division of Avnet, Inc.

IN DENMARK: Musikhuset Jac. Jørgensen, Nicolausgade, 7, DK 8000 Århus C.  
IN FINLAND: M.S. Audiotron, Kiskontie 7 00280, Helsinki 28.  
IN SWEDEN: Boosey & Hawkes Svenska AB, Molndal—Kryptongatan 7, Box 98,  
S-431 22 Molndal 1.

Guild Guitars (U.K.) Ltd.  
151 Portland Road, Hove, East Sussex.

In U.S.A., address:  
Guild Guitars, 225 West Grand Street,  
Elizabeth, New Jersey 07202.

Send new Solid Body Catalog Sheet 8433-T.

Name \_\_\_\_\_ Age \_\_\_\_\_

Address \_\_\_\_\_

Include Zip if U.S.A.

**THERE'S NO PLACE LIKE**

**whomes**<sup>⚡</sup>  
*Limited*

292 HIGH STREET, CROYDON.  
Tel: 01-686 2708

**NOT ONLY ...**

*Guild*

**guitars and accessories**

**BUT ALSO ...**

A friendly atmosphere and intelligent advice on all your musical problems — big or small.

Ovation and Hagstrom guitars. Hohner, Crumar and Logan keyboards, also large stock of acoustic pianos. Carlsbro, Marshall and Vox amps. MXR, Electro-Harmonix, Colorsound and Mutron pedals. Ashworth transducers.

Stringed instrument repairs on the premises by our resident Luthier Ashley Pangborn who will also make instruments to your own spec. Brass and Woodwind instrument repairs, reeds and accessories.

Mail order if required. Access and Barclaycard.

ALL THIS AND 10% DISCOUNT TO MU. MEMBERS  
ON ANYTHING AND 12½% ON ORDERS OVER £300,  
BUT: PLEASE BRING YOUR CARDS

**If your thinking of a  
new or secondhand  
guitar why not  
come and see us**

GUILD,  
GIBSON, YAMAHA,  
SHERGOLD, ANTORIA,  
FENDER, DORADO,  
SHAFTESBURY  
CMI, NED  
CALLAN,



**for**  
CIMAR  
GIANNINI,  
DIASTONE  
GUILD ARBITER,  
GHERSON, FRAMUS,  
PLUS LARGE RANGE  
OF STRINGS  
PEDALS AND  
ACCESSORIES  
HUNDREDS OF CAB  
BUILDING FITTINGS  
AND ALTEC SPEAKERS

**Socodi Music Ltd**

9 The Friars, Canterbury, Kent (0227) 60948

**Cleveland Music**

Where the professionals shop

**for their**

*Guild guitars*



Always a large range of acoustic and electric Guild guitars in stock including Ash Bass, M80 Cherry, B301 Ash, S54 Natural, S100 Black, S300 White, 025C Cherry, S20 Natural.

Plus a large stock of good quality Amps, Guitars and Drums always available.

NO DEPOSIT TERMS AVAILABLE TO SUITABLE APPLICANTS.

**Cleveland Music**

19-21 Cleveland Sq. Cleveland Ctre, Middlesbrough

Tel Middlesbrough 210889

14 Coniscliffe Rd, Darlington Tel Darlington 62375

**Harker & Howarth (Music) Ltd**

26-32, Churchgate, Bolton Tel 26623/4

**WE SELL & RECOMMEND**

*Guild*

Acoustic & Electric Guitars  
Also Full Range of Guild Strings & Accs.

ALSO AT MORECAMBE and LANCASTER

**MODERN  
MUSIC**

30 Castle Hill, Dudley, West Midlands.  
Tel: Dudley 55293

*Guild*

Guild stockists a wide range of accoustics always available, extensive repair service and while-you-wait Shure microphone repairs.

Guitar specialists:- sales, repairs and modifications.

ACCESS, BARCLAYCARD ETC.



# HERMITAGE ORGAN CENTRE LTD.

35 - 37 Hermitage Road,  
Hitchin,  
Herts.

Tel. 0462-59925

We are stockists of the  
*Guild* range of classical and  
Folk Jumbo Guitars.

These are just part of  
our extensive range  
of classical and steel strung  
guitars. Also, a wide selection  
of sheet music, organs, pianos  
and other musical instruments.

Late opening Wednesday from 7pm. - 10pm.

# Loughborough Music Centre

18 The Rushes  
Loughborough  
Tel: 0509 30398

Your *Guild* Stockist for acoustic and electric guitars  
You are cordially invited to a *Guild* guitar clinic.  
Phone us for details.

## Guild IN EAST ANGLIA

GUILD OVATION  
GIBSON FENDER  
MUSIC MAN

ALBERT BALAAM  
MUSIC CENTRE

69 ST MATTHEWS STREET, IPSWICH TEL: 53514  
103 RISBYGATE STREET, BURY ST EDMUNDS TEL: 4324  
Barclaycard, Access, HP & Credit Facilities

IPSWICH  
BURY ST. EDMUNDS  
FELIXSTOWE  
HARWICH

## ROCK ISLAND 10 WATERLOO STREET OLDHAM, LANC'S 061-620 5011

GIBSON STAR DEALER	
LES PAUL artist 3 p.w.'s Walnut, Ltd. Edn.	£850
LES PAUL Custom, Ebony/mickel	£835
LES PAUL Pro Deluxe, Ebony	£475
LES PAUL Std. Maple, Ltd. Edn.	£489
LES PAUL Std. Tobacco, Ltd. Edn.	£489
LES PAUL Deluxe, Wine red	£455
LES PAUL Custom, Ebony, s/H	£850
FIREBIRD S/Burst, G/olated	£324
F.I. Nat. satin, 3 p/up	£349
L.G.S. Deluxe, Wine red	£250
RIPPER Bass, Ebony	£250
ES 330, 1963, S/burst	£289
LES Deluxe, Wine red	£225
MELODY MAKER, 1973, with Upright	£385
MK 35, Acoustic	

MUSICMAN - SIMPLY THE BEST	
2x12 65w combo, RRP £472	OUR PRICE £399
2x12 65w combo, RRP £559	OUR PRICE £475
1x15 65w reflex cab, RRP £268	OUR PRICE £228
MODEL 65 amp head, RRP £316	OUR PRICE £269

FENDER STRAT, M/N w/cream	£299
GUILD, New solid Bass, 2 p/up, s/burst	£305
GUILD D2S Acoustic, Cherry	£239
HAGSTROM, Swede in cherry	£295
PEAVEY Artist 120 w 12" Black widow speaker	£335
PEAVEY Maco, 160w, 2x12	£405
PEAVEY Century 100w, A.P. Hd	£155
MARSHALL 100w, Valve Hd	£125
MARSHALL 50w Master Vol. Combo	£230
YAMAHA 1x12 50w Combo	£170

DRUMS	
LUDWIG Smoke and Fire 26" s/steel	£699
PEARL ROCK KIT 24" in Chrome	£534
PEARL DYNA FAMILY 22" Red Satin	£849
TAMA SWING STAR 5 Drums & Stand	£295

YAMAHA SG 2000, Cherry, S/burst, w/face £485  
YAMAHA SG 1500, Tobacco, S/burst, w/face £398

H.P. Clearance by phone - free in new, Access, P.K. Mail Order - Prices inc. VAT, Closed Tuesdays.

## WHERE CAN YOU GET...

..... PROTECTION - Flightcases and Flightcases built to your own sizes and specification at a reasonable price for top quality work. THE KRAMER RANGE of basses and guitars - almost always the entire range of this fantastic music machine - we also have one or two unique models. SUPER EXPANDABLE P.A. SYSTEMS - Why make a mistake which involves expensive "chopping and changing"? - We have the answer, because we know that the P.A. you can afford now, may not be the one you want in a years time, we've developed a system which ensures your "trade-up" losses are kept to the minimum!

ROLAND KEYBOARD ELECTRONICS We are the "Pro-Centre" for Roland gear - we know Roland - how to get the best from it - the interfaces which can be done - the mods - flightcases - specials - the whole range - the R&P Synth. ROLANDS AMAZING GUITAR SPEAKERS - it had to

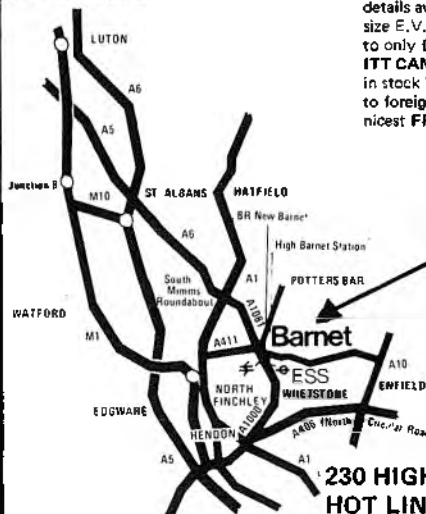
happen - the Japs have sussed the high power speaker gig!

M.M. MIXERS We are the BARNET M.M. CENTRE we always have a good stock of MP175 12:2, 16:2, 8:2, MP275 "Export" model - all mods and options available, extras, specials welcome - flightcased to your requirements AP360 power amps 2 x 235w stereo at a price you can afford! Crossovers, Multiways. Give us a call for a quote - you will be surprised!

ELECTROVOICE SPEAKERS we supply the entire range of chassis, drivers, horns, and speaker systems, eliminators 1,2,3 and 4 and are proud to introduce our own Eliminator Range finished as a flightcase - we honestly believe it's the finest Eliminator ever produced - more details soon - or give us a call.

ELECTROVOICE MICROPHONES - "E.V." have just introduced a new range of mics (including some amazing capacitor jobs) - details available on request - Try this for size E.V. 671A (SM58 equivalent) reduced to only £55 at ESS.

ITT CANNONS at below trade prices, gaffer in stock TAX FREE personal export prices to foreign visitors to London and the nicest FREE COFFEE south of Potters Bar!



RIGHT  
HERE

ESS

230 HIGH ST., BARNET, HERTS.  
HOT LINE 01-440 8970

## THIS MONTH

at  
*Guitarzan & Bongo Bills*

Special New Year  
offers on part  
exchange against

GIBSON S.I. up to £300 on your instrument  
GIBSON MAURAUDER up to £250  
LUDWIG kits to £400.

Plus huge discounts for cash and amplification by MARSHALL, CARLSBRO, ORANGE, FENDER etc.  
We are main dealers for percussion by SONOR, PEARL, LUDWIG, BEVERLEY, ROGERS, TAMA, AVEDIS and PAISTE

A huge range of accessories in stock for both guitarists and drummers at knockout prices credit facilities available you can even telephone your Barclaycard and Access number and we'll dispatch them to any part of the country by securior.

We repair all makes of amplification 6 days a week.

Guitarzan and Bongo Bills  
28-30 Middlesbrough Road  
South Bank, Middlesbrough, Cleveland.  
Telephone: Eston Grange 67510  
For Repairs: Eston Grange 61918

# CHAPPELL'S JANUARY SALE DEC 28th to JAN 28th AN EAR FOR MUSIC, AN EYE FOR A BARGAIN



Guitars, Banjos And  
Mandolins—all at old prices:

## ELECTRICS—PRO, ARTIST AND JAZZ

	List Price	Our Price
2670	Inlaid 'Pro' Twin Neck	900.00 720.00
2671	Inlaid 'Pro' L.P. Shape	392.50 358.50
2680	'Pro' S.G. Shape	296.50 260.00
2676	Inlaid 'Artist' L.P.	537.50 450.00
2619	Inlaid 'Artist' Mahogany	334.00 295.00
2618	'Artist' Mahogany Body	299.50 255.00
2617	Inlaid 'Artist' Ash Body	303.00 265.00
2471-AC	Acoustic Jazz Gtr.	375.00 295.00
2460	L5 Copy	368.50 323.65
2461	J.S. Style	399.50 299.50
2616	'Artist' 175 inc. case	293.00 250.00
2453-CW	H.R. Style-S/S	245.50 195.00
2626	New Artist Bass	353.25 277.50
2625	Inlaid Funky Artist Bass	310.00 283.50
2387-B	Flying V Bass Copy	265.00 235.00
2389	Ricky Bass Copy	263.50 233.50
2369-B	White Precision Style	196.75 175.00

## ELECTRICS—COPIES

2402-WH	White Twin Neck	322.00 275.00
2402	Cherry Twin Neck	293.00 250.00
2463	T'bird Bass Copy	248.50 210.00
2651-CW	Fitted Neck L.P. Copy	276.50 247.00
2420-CW	Inlaid Body Fancy Copy	218.00 192.00
2337-DK	L.P. Special Copy	225.00 181.50
2343	Cherry, Single P/up	195.50 171.20
2351	Antique Violin L.P. Copy	186.50 163.50
2350	White L.P. Copy	180.00 157.75
2350	Black L.P. Copy	170.95 148.75

## ACOUSTICS, BANJOS AND MANDOLINS

647-12	Concord 12 String	111.50 99.50
642	00.45 Inlaid Copy	175.00 160.00

665-BS	Fancy Jumbo	150.00
767	Round Shoulder Jumbo	132.00
752	Black, Twin Pick-guard	124.00
647-BK	Exclusive Model	115.00
684-BK	Black H'bird	115.00
684-CW	H'bird	112.00
951	Guild Style Jumbo	105.00
593-FB	G. Banjos inc. case	350.00
591-FB	G. Banjo inc. case	315.00
589-FB	G. Banjo inc. case	305.00
526	Mandolin, with Scroll	340.00
524	Mandolin, Fancy Inlay	325.00
523	Mandolin, Black Inlay	315.00
522	Mandolin, Oval Hole	250.00

## OTHER BARGAINS

Music Man 1 x 12" 65 Watt	428.67 325.00
Roland JC 80 Combo	353.44 285.00
Roland JC 120 Combo	439.27 350.00
Yamaha G 100 B 212 Combo	339.00 245.00
Yamaha G 50112 Combo	259.00 180.00
Morley Echo/Vol. Pedal	316.39 175.00
Morley Rotating with Pedal	205.91 100.00
Dearmond Phase Pedal	99.50 78.75
Roland AP2 Phaser	49.36 35.00
Gibson "Firebird" Outfit	712.00 455.00
Gibson RB 100 Banjo Outfit	634.00 395.00
Hagstrom 'Jimmy' Jazz Guitar	365.00 295.00
Hagstrom 'Swede'	325.00 275.00
Hagstrom Patch 2000 Gtr. Synth.	1,295.00 995.00
Kramer 450G-shop soiled	505.35 395.00
Yamaha SG 2000 inc. case	585.00 525.00
Yamaha SG 1000 inc. case	485.00 435.00
Guild G37-maple body Jumbo	376.68 250.00
Guild D44MBL-maple body Jumbo	450.45 300.00
Ovation 'Patrol' inc. case	535.00 450.00

Peavey 8 Channel Stereo Mixer	disc. 420.00
Peavey 260S Booster Amp Stereo	280.39 225.00
Peavey 1210T Speakers each	192.50 175.00
Peavey 100 watt Club P.A. Complete	395.00 295.00
Peavey Pacers 45 watt Comb.	184.00 165.00
Vox Escort Battery/Mains	48.00 32.00
Maine 200 watt Club P.A. Complete	562.46 499.00
Martin D18	- 295.00
Martin D18 Matt Finish	- 295.00
Premier Xylophone	845.00 548.95
Premier Tubular Bells	750.00 542.00
Premier D717 Blue 7-Drum	662.00 540.00
Premier B202 Orange 4 Drum	414.00 358.73
Tama Vibes 3 1/2 Octave	530.18 450.00
Tamba Timbales With Cowbell	86.04 75.00
Hohner Clavinet	495.00 395.00
Roland RE 301 Chorus/Echo Unit	499.77 425.00
Roland RE 201 Echo Unit	360.43 299.00
Mini Moog	1,249.00 995.00
CSL D40 Amazing Jumbo inc. case	200.00 150.00
Yamaha FG 180 Jumbo	95.00 75.00
Yamaha FG 110E with Pick-up	81.00 50.00
S/H Martin Mandolin-Perfect inc. case	- 250.00
S/H Calace R/Back Mandolin inc. case	- 195.00
Pro. Microphone Stand	16.45 12.00
Pro. Boom Stand	25.56 20.00

+20% off all D'Addario, CSL, Picato, Gibson, Guild and Chappell Strings.  
-All items listed in stock at time of going to press—if you're coming from Scotland give us a ring first. Most of items listed are one-offs—the reductions are applicable only Dec 28th thru Jan 28th.  
-To all our European customers: We are export specialists and send musical goods all over the world.



50 New Bond Street, London W1. Tel. 01-629 7600

# MEET THE LANEY COMBO'S

Laney combination amplifiers are uniquely designed to cover the ultimate need of the professional musician. Ranging in power from the extremely desirable K20 to the high throw K70 'twin reverb' model at 70 watts RMS with less than 1% distortion at clipping.

All combinations are supported by the world famous Rola Celestion speakers. In addition to the normal control features expected from present day amplifiers models K40, K40B and K70 have the exclusive Laney Klipp feature with footswitch control.



See us at Frankfurt '78. Stand 50264.

For further details and free car and case stickers contact your local stockists.



## I began my drumming career on an old gas cooker.

"Sixteen years ago I literally hand made a drum kit.

I knocked it up using a piece of perspex heated over our old gas cooker. And I successfully burnt myself in the process.

Now my drums are just a little different.

I've had three new drum kits since I turned professional. They've all been Ludwig.

The one I use at the moment is a Vistalite kit. Why do I use them? Habit I suppose. And the fact that they're the best in the world.

What makes them that good? My ears say Vistalite drums sound better. They're also a fair bit lighter than the regular kind and they're a hell of a lot more rugged. Better looking too. Ludwig make nice drums.

I also use Zildjian cymbals. The ones I play now I got eight years ago. After spending a day pounding just about every darned cymbal they had in the factory. I think it nearly sent them spare.

What happened to my hand made drum kit? My kid's got it. But I got rid of the gas cooker. I couldn't have anyone discovering my secret."

Ginger Baker needs no introduction to anyone weaned on Blues Incorporated, Cream, The Graham Bond Organisation, and Blind Faith. And he has just completed a new album with friends. He is pictured here with his Vistalite Ludwig kit. The cymbals are Avedis Zildjian.

Please send me information about Ludwig/Zildjian.

Name \_\_\_\_\_

Address \_\_\_\_\_

Rose-Morris Ltd., 32 Gordon House Road, London NW5 1NE. Tel: 01-267 5151.

IM.1.78. L.G.



# The music store that has a mail order service

## EFFECTS

Roland AP2 Phaser	£38
Roland AP7 Jet Phaser	£69
Space Echo	£259
MXR Phase 100	£95
MXR Phase 90	£70
MXR Phase 45	£45

## KEYBOARDS

Fender Rhodes	£575
Vox Elec Piano	£200
Yamaha CP30	£895
Yamaha CS50	£1100
Yamaha CS60	£1900

ARP Pro Soloist	£844
ARP Oddysey	£950
Roland SH2000	£600
Roland SH3A	£420
Roland EP20	£335
Roland EP30	£495
Mini Korg	£400
Korg Poly 1	£690
Hohner Clavinet D6	£490
Hohner Pianet T	£295
Hohner K4 String Thing	£275

## GUITARS

<b>Fender</b>	
Tele Standard RN	from £200
" " MN	from £230
Tele Custom	£265
Strat RN and trem	£275
Strat MN and trem	£295

Strat RN	£230
Strat MN	£250
Precision Bass RN	from £195
Precision Bass MN	from £200
Jazz Bass RN	£250
Jazz Bass MN	£275
Tele Bass MN	£215
Mustang Bass RN	£175
Mustang Bass MN	£195
Musicmaster Bass	£120

<b>Gibson</b>	
SG Standard	£450
Les Paul Custom Black	£550
Les Paul Custom Natural	£590
Les Paul Custom Wine Red	£500
Les Paul Deluxe	£349
Les Paul Standard	£395
Marauder Natural Satin	£250
Firebird Natural	£555
Explorer Natural	£475
Ripper Bass Natural	£364
Grabber G3 Natural	£300
Grabber Natural	£280
Thunderbird Natural	£580

<b>Ovation</b>	
Breadwinner	£450
Balladeer	£295
Folk lore	£320
Custom Balladeer	£300
Legend	£400
Artist	£320
Patriot and Case	£600
Matrix	£200
Glen Campbell	£385
Elec Glen Campbell	£440
Elec Country Artist	£400

<b>Yamaha</b>	
SG 2000	£500
SG 1500	£425
SG 1000	£450
SG 700	£395
SG 500	£350

<b>Rickenbacker</b>	
330	£350
4001 Bass	£450
Byrd 12 String Natural	£450

<b>Guild</b>	
D25	£250
S100	£250
B301	£270
B302	£330

# FREE 'N' EASY MUSIC

Prices applicable during January 1978



## Stu & Colin

100 High Street, Hemel Hempstead. 0442 59659



# offers you more now that's second to none.

## AMPLIFIERS

<b>Fender</b>	
Fender twin	£299
Fender Twin and JBL	£399
Fender Bassman 100	£190
Fender Bassman Cabinet	£190
Fender Bassman 50	£140
Fender Super Twin	£300
Fender Vibroluxe	£275
Fender Champ	£65
Princeton	£120
Musicmaster Bass	£105
<b>Carlsbro</b>	
Marlin	£175
Slave	£115
Stringray	£138
Stringray Bass	£135
Stringray Bass Combo	£215
Full range flare	£225
Vox AC30	£180
Custom Sound Trucker	£90
Custom Sound Trucker Bass	£105
Custom Sound 12 Ch. Mixer	£428
<b>Peavey</b>	
Classic	£225
Deuce	£315
Pacer	£160
Musician 200W and 4x12 Cab	£400
Mace 4x12 combo	£425
600 Mixer	£245
8 Ch. Stereo Mixer	£420
12 Ch. Stereo Mixer	£595
<b>Music Man</b>	
Combo	
112/65	£400
115/65	£450
210/65	£450
212/65	£530
210/HD/130	£500
212/130	£640
Heads	
65	£310
65 Rev	£380
HD 130	£400
HB 130 Rev	£450
Speaker Enclosures	
115 RH65	£250
212/RH/130	£300
412/GS	£330

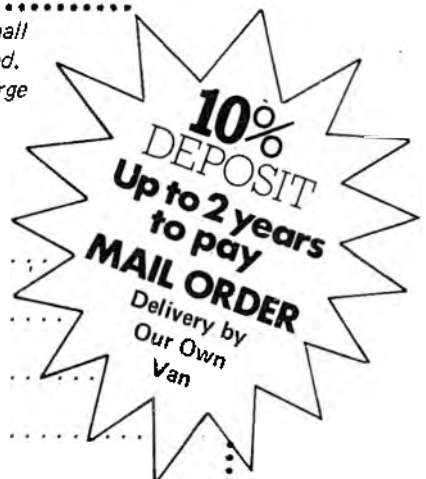
<b>H/H</b>	
VS Musician	£155
VS Bassamp	£135
VS Musician Combo	£240
VS Bassamp Combo	£240
Studio 50	£155
4x12 Cab	£180
2x15 Cab	£180
2x12 Cab	£155
MA 100	£170
Slave	£100
212 DC Cab	£110
412 DC Cab	£175
Multi Echo	£170

## PERCUSSION

Black Ludwig Rock Machine	£700
Black Rogers Londoner 5	£500
Premier D717	£660
Premier D606	£731
Premier D604	£486
Premier D308	£587
D202	£414
B203	£494
Sonor 5 drum, Copper 24"	£650

**We specialise in  
LEFT-HANDED  
GUITARS**

.....  
*Please send me my free Free 'n' Easy T*      *Small*  
*shirt and sticker along with my order*      *Med.*  
*for a .....*      *Large*  
*I enclose a cheque to the value of .....*  
*which includes a charge of £10 for delivery.*  
*I require/do not require credit (delete*  
*where applicable).*  
 Name .....,  
 Address .....,  
 .....,  
 .....,  
 Telephone No. ....  
 .....



## LOOK!

Free Shure Mike  
with all H/H,  
Carlsbro, Maine,  
and Traynor  
order over £150



# Ed & Den

57 High Street Aylesbury, Bucks O296 86913

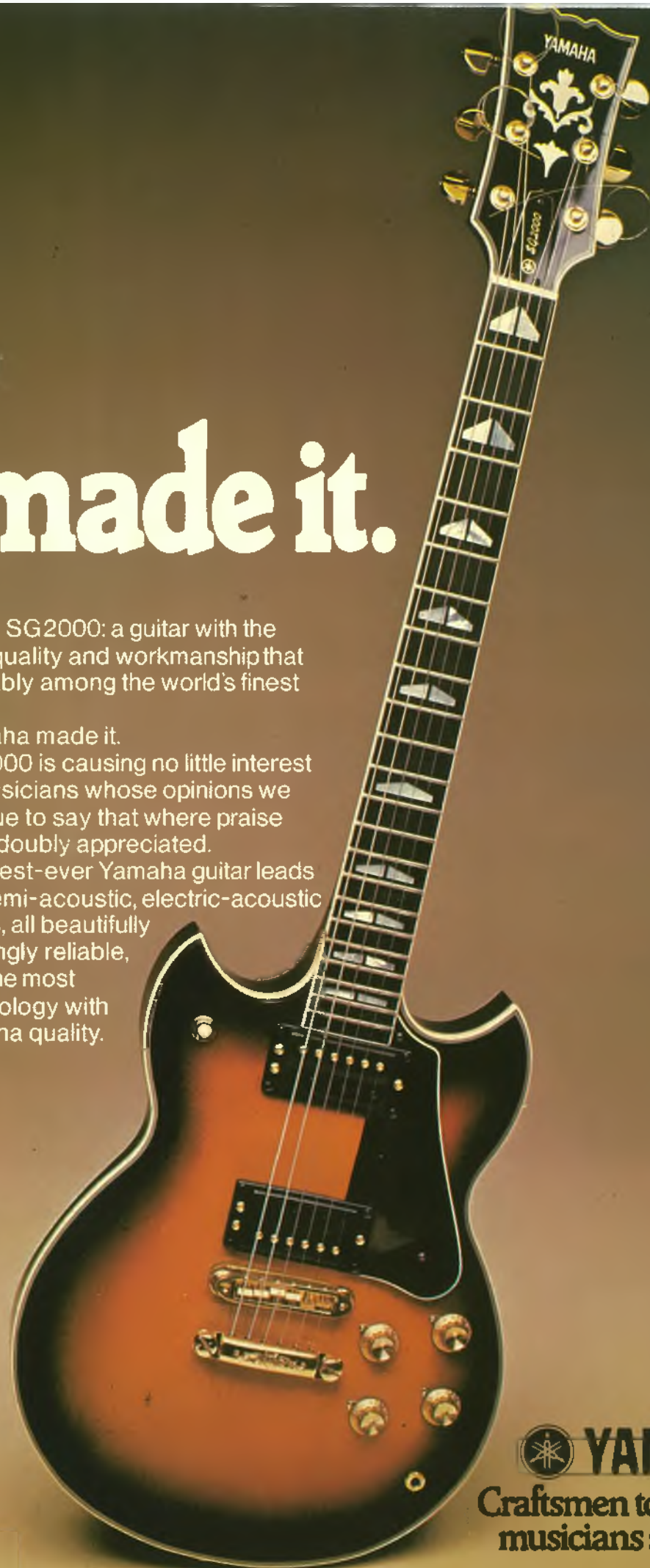
# We made it.

This is the SG2000: a guitar with the brilliance, style, quality and workmanship that place it indisputably among the world's finest instruments.

And Yamaha made it.

The SG2000 is causing no little interest among those musicians whose opinions we value; and it is true to say that where praise is hard won, it is doubly appreciated.

This greatest-ever Yamaha guitar leads a field of solid, semi-acoustic, electric-acoustic and bass guitars, all beautifully made, outstandingly reliable, and combining the most advanced technology with traditional Yamaha quality.



**YAMAHA**

Craftsmen to the world's  
musicians since 1887



## Pat Travers and HHB

HHB, the London PA hire and sales company are doing great things with the Pat Travers Band these days. This hard working band have been gigging all over the country for the past two years and have built up quite a following.

The company are based in Unit F, New Crescent Works, Nicoll Road, London NW10 and the man in charge is Ian Jones. Their equipment includes 4Kw and 5Kw systems, 32, 24 and 16 channel Amek mixers with full facilities.

They use Pro Audio graphic equalisers, Amcron power amps with ATC and JBL speaker systems. RSD amps power their 2 by 12 wedge monitors using ATC speakers and JBL horns, and ATC and JBL side fills are also used. AKG, Beyer, Electrovoice and Shure mikes and stands are also available.

## Rumbelows Music Evening

The Rose Morris demonstration at Rumbelows of Reading proved a great success, despite some particularly bad weather on the night. A good crowd turned up to see guitarist Adrian Legge demonstrate the Ovation range of guitars and MXR effects pedals, while Rose Morris's Jim Wilmer explained the ins and outs of the Marshall amplification stock.

Shop manager Martin Lawrie and his assistant Steve Christopher were pleased with the show, which resulted in instant sales of

an Ovation Legend and an Ovation Preacher in addition to some amplification.

Said Steve: "It all went very successfully, the demonstration was definitely worthwhile. Considering what the weather was like, on the day, I was surprised that so many people turned out".

The shop, which is situated in Friar Street, Reading, stock a complete range of combos, amps, monitors, cabinets, guitars and keyboards.

## New Aria Agency

The much sought after Aria agency has been awarded to a new company called Gigsville for the U.K. Directors of the company are Pete Tullett and Terry Maybee.

Pete Tullett resigned as Sales Director of the EMI Rosetti company a few months ago and he says he is particularly excited about the prospects for Aria in Britain.

Terry Maybee is equally well-known to the retail trade in the U.K. In recent years he's been working with Hohner promoting sales of Sonor drums and other lines and before that he was a rep for Simms-Watts.

Gigsville is expected to be based in West London where it will establish its own warehousing and office premises.

The picture above shows the Gigsville directors on a visit to the I.M. office to show a sample of the new Aria guitar range and to arrange their major promotion for 1978. L-R Terry



Maybee, Richard Desmond, Advertisement Director of International Musician and Pete Tullett.

## RAK gets Dream Machine

Mickie Most's RAK studios in St. John's Wood are believed to be the first studios in the world to install a £40,000 Yamaha GX1 synthesizer, nicknamed the "Dream Machine" by Stevie Wonder.

Mickie was so impressed by what he heard Stevie Wonder do with the machine on his "Songs In The Key Of Life" album that he decided to invest in one.

He said: "We found we were running out of ideas, and the GX1 is such a fantastic instrument that I decided to get one. You can get so many different sounds out of it and, by using it with the musicians, Yamaha reckon that you can make any sound in the world on it".

Apart from Stevie Wonder (and now RAK) the only other possessors of a GX1 are Keith Emerson and John Paul Jones of Led Zeppelin. Hot Chocolate are expected to feature the "Dream Machine" on their next album.

## Free 'n' Easy open in Oxford

Free 'n' Easy Music are opening a new store in Oxford. It will be their third they have established in just over a year. Directors Denis Fowler and Stuart Darling opened their first shop in Aylesbury early in 1976

followed by another in Hemel Hempstead towards the end of that year.

The new Oxford venture, opening at 100 High Street on January 2nd promises to be just as successful as the previous two in providing much needed services for local semi-pro musicians.

Denis is also hoping to tap a very lucrative market in the American bases around Oxfordshire. He added: "You would be amazed at the number of people on the bases who play musical instruments. After all, they are stuck there with very little else to do, so that it is only natural they get into music".

Oxford itself has a very lively local music scene which should benefit from the opening of the new Free 'n' Easy store. Stuart Darling will be going over to Oxford for the initial launch, but the man in charge there will be Roger Batchelor.

## Barcus Berry for Guild

Guild Guitars (UK) Limited has become the new distributors for Barcus Berry in Britain and Ireland.

Barcus Berry are makers of transducer systems, and with this change over there is an introduction of a new range of Combo Amplifiers, Mixers, and Public Address Systems.

The Combo amplifiers consist of 80 watt 2 x 10, 1 x 15, 140 watt 4 x 10, 2 x 15, and 2 x 12. The Mixers are four channel and six channel models. The power amplifier to drive the mixer is a 100 watt, solid state. The Public Address enclosures are 2 x 12 and 1 x 12, both of these include one Audioplate in each enclosure.



Rumbelows' demo evening



## Biggles On The Move

Biggles Music of Bristol are on the move. They are leaving their West Street address to set up a new store about a mile away at 121 Victoria Street, near Temple Meads.

Partners Bob Crane and Phil Thorne say that the new premises will enable them to expand and give a much better service to their customers. Already, they are planning on setting up rehearsal rooms which will be available on a nightly basis with the possibility of block lettings.

The two partners are confident that Bristol's thriving pro and semi-pro music scene will ensure the success of their new venture.

## New Soundwave Store

Soundwave, the East London PA specialists, have opened a new super store in



*Supersounds in North London had a very special celebration last month when John Ward (the boss) married Katherine and invited many members of the musical instrument trade, customers and friends to the reception. Pictured above are the happy couple and in the centre is the other half of the Supersounds partnership, Duncan Kinell.*

Romford Essex. Previously they had two separate shops one catering for instruments and amplifiers with the other dealing solely in sound systems.

The move out to 66 Victoria Road, Romford, has meant that all their services

can now be housed under one roof. The store opened just before Christmas, offering massive discounts during their opening week.

The outstanding feature of the new premises is the studio where the PA systems can be demonstrated for

customers.

Shop manager Alan Morgan said: "We have rigs ranging from 100 watts to 2Kw and we are the only place in London, and probably Europe, where people can really hear and try them out at full blast before you buy them".

"We have a comparator which enables the whole band to plug in and make direct comparisons of mikes, mixers, monitors, amps, speakers, horns and bins".

Apart from this facility, Soundwave carry a complete range of instruments, back line amps and accessories including effects pedals. They also cater for the schools/beginners market by including acoustic guitars from the lower end of the price range

It is very much a musicians' shop with every effort

# Only Premier give you 100,



Premier give you the freedom to make your outfit as individual as you are. Double up with twin bass drums or stay single, get into wood or heavy metal snares, go single or double headed, support Lokfast or Trilok hardware, sound normal or resonate, hit any of 5 cymbal brands or two types of head, put your foot down on any one of 4 pedals and finish it all off with the best range of colours around.



being made to meet with all their requirements, it is not just a store which happens to stock instruments.

Alan will be running the store in conjunction with director Fred Friedlein and their PA and repairs expert Andy Perry. It is situated just two minutes from Romford railway station and has easy road access and parking.

### Sales Manager for Electro-Voice U.K.

John Cook, 27, has been appointed Sales Manager of Electro-Voice Division of Gulton Europe Ltd., Hove, Sussex. Prior to joining the company in November 1976 as a sales engineer responsible for the North, he was a sales engineer with Dorman Smith in Preston.

The Electro-Voice Division of Gulton Europe Ltd. markets throughout the United Kingdom the whole range of Electro-Voice sound reinforcement products (microphones, loudspeakers and public announcement systems).

Its offices are located on Maple Works, Old Shoreham Road, Hove, Sussex BN3 7EY. (Tel: (0273) 778401).

### New Showroom for CBS/Arbiter

A major departure in music instrument retailing occurred last month when CBS/Arbiter opened up new retail premises in Lion House in London's Tottenham Court Road.

The opening breaks new ground for several reasons. It is the first time that music instruments and hi-fi have been sold alongside hi-fi in London's main hi-fi area. CBS/Arbiter Chairman Ivor Arbiter told I.M.: "We're not sure if the idea will work, we wanted to see if we could persuade people to think about making their own music instead of just buying recorded music".

Despite being experimental, several new marketing ideas seem certain to get a strong reaction. A new finance system with the slogan "Take It Away Today For . . ." has been introduced. This system allows buyers to place a slightly larger than usual HP deposit on an instrument or



*Chris Gilbert of Shure Electronics Limited presents Cliff Richard with a personally inscribed gold Shure SM58 microphone. This links Cliff Richard's name with Sammy Davis Jr., Mick Jagger, Barbara Streisand, Andy Williams and Frank Sinatra, who together make up a privileged list of the world's greatest entertainers who have been honoured this way by Shure Electronics Limited.*

item of equipment and take it away on the spot.

The only requirement is proof of identity and no guarantors are needed. It is hoped that many musicians who have found difficulty in obtaining credit will take advantage of the scheme.

The principal thinking behind such a bold move is that a large percentage of the buying public are honest and thus a system of trust must lead to better instrument sales. Brands stocked in Lion House include Fender, Vox, Arbiter, Paiste and Rhodes.

# 1000 outfits to choose from.



The Premier and Olympic range means over 100,000 outfit options – the choice is yours at your local Premier dealer.

The Premier Drum Co Ltd, Blaby Road, Wigston, Leicester.

**Premier**  
1st IN PERCUSSION

# MUSIC GROUND

246 Station Road, Dunscroft, Doncaster. Tel: (0302) 843037

## YAMAHA PRO-CENTRE

We have a full range of American Guitars. Amps and Cabs by Music Man, Peavey, Fender, Carlsbro, Ampeg, Orange, Hi-Watt, Altec, Yamaha. Come and visit our new Drum Showroom with an extensive range of drums and accessories.

• WE WILL MATCH OR BETTER ANY GENUINE ADVERTISED PRICE ON CURRENT EQUIPMENT EX. STOCK

Fender



Gibson

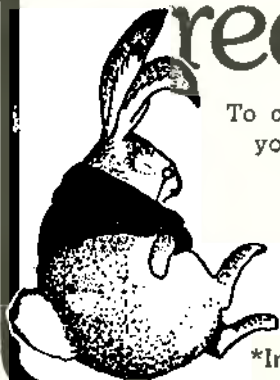


Ibanez

BOSE

Give cash discounts/no deposit/H.P. terms/Part exchange welcome. Good repair service and guitar lessons given.

# Spaceward. a 16 hr, 16 track recording from £85\*



To celebrate our 5th birthday we bought some new gear you'll enjoy playing with. An Eventide Harmonizer.

A MicMix Timewarp. Audio and Design Vocal Stresser. Studer B67 VU 2-track. Eventide Instant Flanger. More Neumanns. But till Christmas we're still only £85\* a day all in. Phone Gary any-time for all the details.

\*Includes discount. VAT extra. Also from £9/hour

Spaceward  
19 Victoria St  
Cambridge  
(0223) 64263



# HALLIGAN HEAPE BAND CENTRE

103-105 Holloway Road, LONDON, N.5. Tel: 01-607 0077

Open 9am-6pm Monday to Saturday

LOW PRICES - FAST SERVICE - PERSONAL ATTENTION

Amplifiers	Drums	Guitars	Keyboards	Speakers
H.H.	Ludwig	Ovation	Korg	JBL
Marshall	Rogers	Fender	Clavinet	Gauss
Fender			Rhodes	ATC
Marlboro	Also Effects:- MXR and De-Armond Pedals			

REHEARSAL ROOM? We can offer the use of a large, warm rehearsal room with all amenities

P.S. Avoid parking in the bus lane 8am-10am, 4pm-7pm

# acoustic

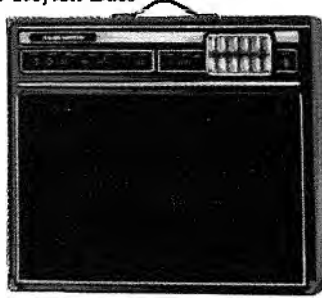
From

# Kitchens

EST. 1875 THE MUSIC PEOPLE

## This advert is a waste of time

Due to fantastic sales of Acoustic Amplification following last months ad. we just have none to sell. All we can ask you to do is send money and make sure you get what you want from our next shipment due in early january. In transit to us are more Combos, Graphic Amps, 2 x 12's, 2 x 15's, 4 x 12's and Horn Cabinets, the incredible Reflex Bass Bins and the Graphic Bass Amps.



### Find out about ACOUSTIC NOW!

FILL IN THE COUPON

Please send full details of Astounding Acoustic Amplification

Name .....

Address .....

Kitchens, 26, Queen Victoria Street, Leeds 1. Tel: 446341



## T-SHIRT OFFER

### BRIGHTEN UP YOUR CHEST!

with an IM 'Keep Music Live' T-Shirt Only £2.50 for this once-in-a lifetime garment. Be noticed, win friends, have power over men/women, get arrested.

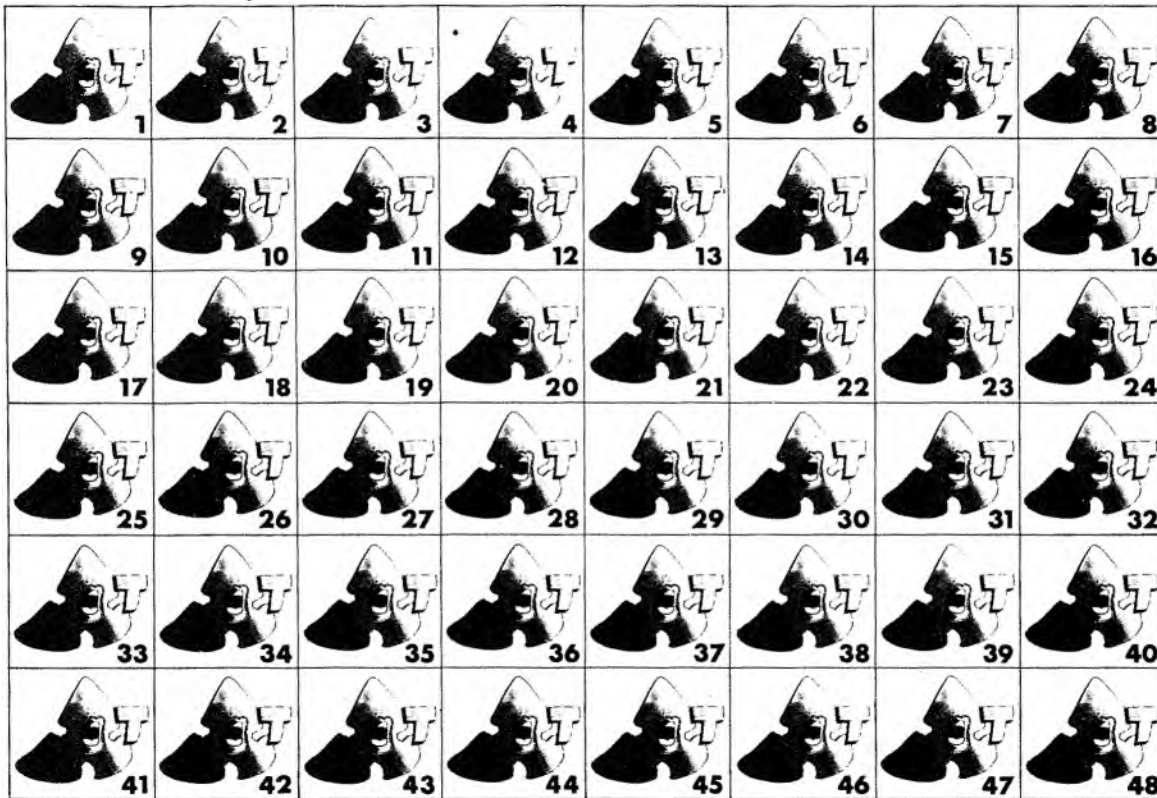
Please send me ..... T-Shirts, size, Small, Medium, Large. Colour Light Blue, Yellow (Delete as applicable). I enclose a cheque/ Postal Order for..... Made payable to Cover Publications Ltd.

Name .....

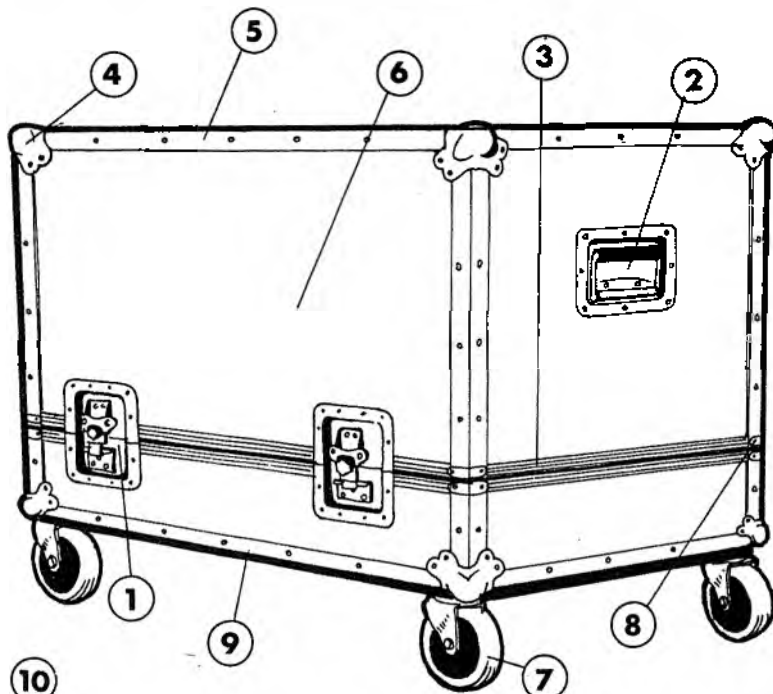
Address .....

Send to:  
Cover Publications Ltd.,  
7A Bayham Street, London N.W.1





**~Speaks for itself... on 48 Tracks**  
**TRIDENT RECORDING STUDIOS Ltd. 01-734 9901**



## PHYSICAL INSURANCE

Custom Built flight cases at mass produced prices from Bulldog. Try these for size.

### FLIGHT CASE PRICE LIST

ARP 2600 (2 cases)	£98	19" Racks (Amp 2 Door **)	from £72
ARP Odyssey	£48	Roland SH16	£60
ARP Axe	£48	Roland String	£54
ARP Pro Soloist	£49	Roland SH2000	£52
ARP Solina	£59	Roland Space Echo	£33
ARP Sequencer	£35	Roland RS202	£53
Acoustic 370 Cab **	£96	Revox tape Recorder	£44
Fender 371 Amp Top	£42	Syndrum Set	£69
Fender Bassman 100 Cab **	£92	Wurlitzer Piano	£66
Fender combus *	from £59	Yamaha Baby Grand C.P. 70 **	£140
Fender Stage Piano **	£86	Yamaha C.P. 30 *	£86
Fender Stage Piano Cab **	£89	Yamaha Poly Moog C.S. 80 **	£92
Guitars	from £40	Yamaha C.P. 60 *	£84
Hohner Clarinet	£68	Cymbals 22"	£45
Leslie Cab **	£93	Drums Acc. and Stands *	£59
Music Man Combos *	from £56	Drum Kits **	Price to requirements.
Mixers	from £32	Prices are subject to VAT at 8%.	
Marshall 4 x 12 Cab **	£74	Discounts are available on quantities.	
Marshall 4 x 15 Cab **	£98	* Standard Castors	
Marshall Tube 100 Top	£45	** Heavy duty castors with rubber tyres.	

1. Recessed session catches
2. Recessed sprung handles
3. Weatherproof location strip
4. Heavy duty knuckle corners
5. Smooth edged aluminium angle that prevents warping and gives the best protection.
6. 1mm deep green abrasive fibre heatbonded to 3/8 on 1/2 ply. Giving a good balance of strength and lightness.
7. 4", rubber tired, heavy duty castors mounted on hardwood plates to act as shock absorbers.
8. Angle braces for added protection.
9. Hardwood runners
10. Cases lined with 1" chip foam



Other prices and sizes on Application from **Bulldog Cases** 01-450 3725

# BULLDOG CASES





**SUPER  
TOUGH-SENSITIVE  
ELECTRONIC  
PIANO**



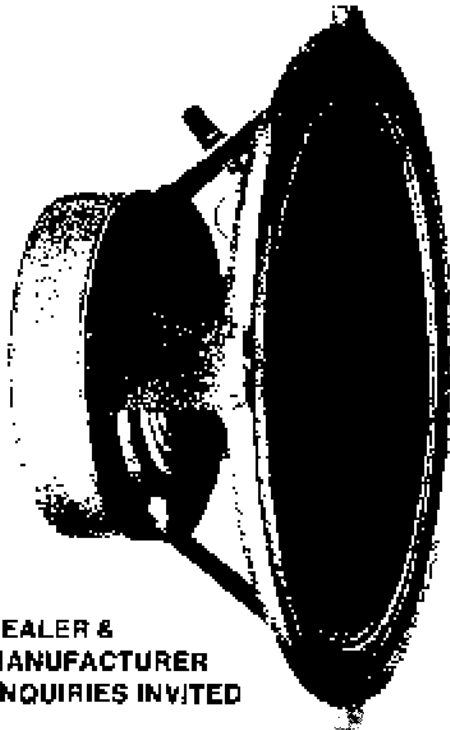
TSSS Has The Characteristics Of A Real Piano

- \* **Featuring** - Linear Touch-Sensitive keyboard giving Pianissimo and Fortissimo playing techniques.
- o **Natural Speaking Tone** - Higher notes have stronger attack and the lower notes have longer sustain.
- o **Perfect key up and key down effect** of a real piano. When a key is depressed and held down the sound decays slowly and when the key is released the sound decays rapidly.
- \* **Loud and Soft Pedal** - When the loud pedal is depressed and the note is played and released the sound decays slowly, but when the loud pedal is released the sound decays instantly.
- o **Transpose Control** - With the use of the transpose control the keyboard can be tuned to any pitch by one whole octave.
- \* **Extra Effects** - Honky Tonk, Harpsichord, and Fast and Slow Tremolo.
- \* **Solid plywood cabinet covered with hard wearing vynide.**
- o **ALL THIS MAKES ELVINS ELECTRONIC TOUCH-SENSITIVE PIANO THE FINEST IN THE WORLD.**



ELECTRONIC MUSICAL INSTRUMENTS,  
12, BRER ROAD, HACKNEY, LONDON E8 1JP  
Tel. 01 388 8488/8403

# Richard Allan High Power Units



**DEALER &  
MANUFACTURER  
ENQUIRIES INVITED**

	HD12PS	HD12 (Illustrated)	HD12 SUPER
<b>POWER HANDLING</b>			
WATTS RMS			
CONTINUOUS	50	100	100
<b>SENSITIVITY</b>			
1 WATT INPUT	99dB	96dB	97dB
FLUX DENSITY GAUSS	13,000	13,000	17,000
FREE AIR RESONANCE H2	30	55	55
RETAIL PRICE PLUS VAT	£15	£22	£29.50

**ALSO AVAILABLE** 50 WATTS 8" BEXTRENE  
50 WATTS 10" PAPER  
100 WATTS 15" PAPER

ALL AVAILABLE IN 8 OR 15 OHMS AND TWIN CONES  
FOR FURTHER DETAILS WRITE OR PHONE:-

# Richard Allan

**Sales Office** RICHARD ALLAN LTD, BRADFORD ROAD, GOMERSAL, CLECKHEATON, YORKS, BD19 4AZ, ENGLAND  
TEL. CLECKHEATON STD (0274) 872442/3, CABLES "ACOUSTICS" BRADFORD, TELEX CON CAB 51112

**Technical Advice** D. J. PEERS ESQ, RICHARD ALLAN LTD, 559 BRADFORD ROAD, BIRKENSHAW,  
BRADFORD, WEST YORKS, ENGLAND. BD11 2AQ, STD (0274) 683027

# MERRY CHRISTMAS & A HAPPY NEW YEAR

## A1 MUSIC CENTRE

would like to wish  
all their customers a  
Merry Christmas and  
a Prosperous New Year

### Cerebrum Lighting

wish all their clients  
and friends a Merry  
Christmas and a  
bright and  
phosphorous New  
Year.

Malcolm Dennis and  
Trevor Cash of telephone  
sales at

### CBS Arbitrator

wish all their customers  
+ friends a Happy  
Christmas and will call  
them to make sure they  
have a prosperous  
New Year.



**AKG** acoustics

Send Seasonal  
Greetings and wish  
you all a Happy and  
Sound New Year

## WING MUSIC

A Merry Christmas and a Happy New Year to Krazy Kat, Tylagang, Suzy Siouxe, The Jam, The Sprinklers, Grand Hotel, Giggles, Japan, London, Stone Cold Sober, VHF, The Zainegriff, Gordon Giltrapp, The Vamp, The Meat Gallagher & Lyle, The Only Ones, The Fabulous Poodles, Bouncer, Burlesque, Steve Hillage, Bananas, The Pleasers, Sparrow, Tennis Shoe, 10CC, Strider, The Clash, The Motors, The Rumour, Bronx, Lazy, Jaguar, Jive Bureaux, Bonaparte, Sounds Bob Rogers, Five Below, Stage Fright, Low Down, and all our valued friends who's names escape us at time of press.

Thank you all for another successful year from Barry, John, Dave, Liz, Andy, Mike, Peter and all at Wing Music.

# HAPPY 1978 FROM

## Celestion



Wishing all our  
readers a Merry  
Christmas and a  
Giggin' New Year  
from all at I.M.

INTERNATIONAL  
**MUSICIAN**  
AND RECORDING WORLD

## Beyer Dynamics

with Best Wishes  
for a Happy Christmas  
from Stan Duer and  
all the staff at  
Beyer Dynamics

## HENRITS DRUMSTORE

Seasonal Greetings to  
all our customers and  
friends.

The bar's always open!

A Merry Christmas to all  
our Dealers from

**TREVOR DANIELS & CO**

**CRUMAR**

PRODUCTS

## M. HOHNER LTD

39-45 Coldharbour Lane, SE5.

Have a very Merry Christmas  
and a  
Merry profitable New Year.

# DEALER GUIDE

## AVON

**ASSEMBLY MUSIC**  
25 Claverton Buildings, Widcombe, Bath.  
0225 22894  
12 The Promenade Gloucester Road, Bristol.  
0272 425245  
EC, IR, MA, RS, Spec, ERS, EK, G.A.D.B.W.  
H.Ac.SFI, PA, PSG, S/Hnd, M.R.C.C.B.  
Premier, Traynor, Sonor, Carlsbro, Gibson.  
Tama.

## BEDFORDSHIRE

**BEDFORD MUSICAL INDUSTRIES**  
58 Midland Road,  
Bedford.  
(0234) 68142  
EC, IR, G.A.D.S./Hnd, MA, RS, Spec, E.R.L.H.  
M.R.C.PA, CB, Di.

**BOOGALOO BASEMENT**  
17 Bridge St., Leighton Buzzard, Beds  
05253 66622  
G.A.D.B.W.S./Di, R.S. Gibson Star Dealer

**MILTON KEYNES MUSIC LTD**  
17 Bridge St., Leighton Buzzard, Beds.  
05253-66622  
EC, RCN, O, IR, SYN, G.A.D.S./Hnd, MA, RS  
ERS, EK, K.B.W.L.H.T.M.RC, SM, PA, Di.

**LUTON MUSIC CENTRE LTD (BEDS)**  
114 Leagrave Road, Luton, Beds.  
Tel: Luton 264226  
Part Exchange Credit and Cash  
G.K.A.D.B.W.S. & EC, O, IR, Synth, S/Hnd,  
MA, RS, Spec, ERS, EK, L.H.Ac, S, FI, T.M.  
RC, SM, PA, PSG, CB.

## BERKSHIRE

**RUMBELLOWS MUSIC**  
138/141 Friar Street, Reading.  
Reading 58361  
EC, O, SYN, G.A.D.S./Hnd, RS, SPEC, ERS.  
EK, K.L.A.C.T.M, SM, PA, Di.

## BIRMINGHAM

**YARDLEYS**  
Snow Hill, Birmingham  
021 236 7441  
G.A.D.B.W.S./Di, PA, RS.

## JONES & CROSSLAND LTD.

6-8 Smallbrook,  
Queensway, Birmingham.  
021-643 4656/6/7  
CB, RCn, O, IR, SYN, G.A.D.S./Hnd, RS, ERS, EK,  
B.W.Ac, M, SM, PA.

**Drumland Birmingham**  
50 Longdon St., Birmingham B2  
021 645 6641  
Fax: 021 645 6641  
**Woodrolfs**  
5/3A Dale End, Birmingham.  
021 236 4392/3

## BRISTOL

**BIGGLES MUSIC**  
85 West Street, Old Market,  
Bristol. Tel: 0272 552147  
A, G.S, RCn, IR, S/Hnd, MA, RS, ERS, EK,  
H, M, PA, CB, T, HP & PX

**BUCKINGHAMSHIRE**  
**HAMMOND MUSIC & ORGAN CENTRE**  
43a Buckingham St., Aylesbury, Bucks  
0296 3131  
G.A.D.K.B.W.S, EC, Di, L, Ac, Syn, RS, EK,  
SM, RC.

## CAMBRIDGESHIRE

**CAMBRIDGE ROCK**  
44 Newnham Road, Cambridge.  
0223 65093  
EC, RCn, IR, G.A.S./Hnd, MA, RS, ERS, H.M.  
RC, PA, CB, PA

## CHESHIRE

**CUSTOM AMPLIFICATION**  
45 Nantwich Road, Crewe  
0270 4770  
G.A.D.K.S./Di, L.

**THE ORGAN CENTRE**  
J.G. Flattly & 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.W.S.B.

**RUMBELLOWS/STROTHER'S**  
Coronation Bldgs., Wallasey Rd., Wallasey  
051 639 3622/9871  
G.A.D.K.W.S.

## CLEVELAND

**CLEVELAND MUSIC**  
19-21 Cleveland Sq., Middlesbrough  
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 58577  
G.A.D.K./Di, T.G.K.

## CUMBRIA

**J.P. DIAS (CARLISLE) LTD**  
149-153 Botcher Gate, Carlisle  
0228 22369/28700  
EC, O, SYN, G.A.D.K.B.W.S./Di, Ac, PA, RS.  
ERS, EK, T.M.S.M.P.

**NORTHERN SOUNDS**  
41 Jane Street, Workington CA14 3BW  
Workington 4797  
G.A.D.K.S./Di, RS, T.O.

## DEVON

**MUSIC MARQUEE**  
47 Naito St., Plymouth PL1 2AG  
0752 63559  
G.A.D.K./Di, L.R.S.

**THE DAVID VANE MUSIC CENTRE**  
47 Exeter Rd., Exmouth, Devon  
03952 75246  
A.O.D./Di, S/Hnd, S.M.ERS, Spec, G.T,  
G.K.

## DORSET

**COAST MUSIC**  
129A Hankinson Road, Charminster,  
Bournemouth 0202 522613  
Spec. American Guitars  
G.A.D.S./MA, RS, M, PA, CB, Ek, S/Hnd.

## ESSEX

**CHRIS STEVENS MUSIC CENTRE LTD**  
11 Queen Road,  
Southend-on-Sea.  
0702 45451  
G.A.D.K.B.W.S.  
EVERYTHING A MUSIC SHOP

## GLOUCESTER

**RAY'S**  
287 High Street, Cheltenham. Tel: 22317

## HAMPSHIRE

**BECKETTS MUSIC**  
2/3 Gibbs Road,  
(Side of ABC Cinema),  
Southampton.  
0703-24827  
G.A.D.S./Hnd, RS, B.W.Ac, M, SM.

**JIMZ**  
83 Bangass, Christchurch,  
Bournemouth.  
02015 71270  
G.A.EK, RS, ERS, M, R, Cn, S/Hnd, Fender, Soundhouse

**TELECOMMS**  
189 London Road, Northend, Portsmouth  
0705 60036  
S/Hnd, MA, RS, EK, K.I.R, SYN, G.A.D.S.M.  
PA, Di.

**Kingfisher Music Company**  
20 Kings Rd, Fleet, Hampshire.  
02514 21210  
G.A.EK, P.A.S, Hnd, ET, CB, O, IR, SM, P  
RS, ERS, SFI, E, London Soundhouse, Gibson,  
Star Dealer, Syn, IR, M, A, S, L, H, Post, M, P  
CB

## HEREFORD

**HEREFORD SOUND CENTRE LTD**  
7 Bridge St., Hereford  
Hereford 58550  
EC, G.A.D.S./Hnd, MA, P, RS, Spec, L.H.  
M, PA, Di.

## HERTFORDSHIRE

**Ware Music Ltd**  
8 Belmont St., Ware, Herts  
0920 9920  
G.A.EK, ERS, S, H, RC, S, Hnd, S, Hnd  
M, PA, for Yamaha, Riba, Kawai, Philips

**THE BAND CENTRE**  
9 Harcourt Road, Dublin 2  
0001 75 2663  
G.A.K.P.A, Spec, H.P.A.

**MODERN MUSIC CENTRES**  
Wright's Arcade, Newtownards,  
46 Gray's Hill, Bangor, Northern Ireland.  
0247 61292  
EC, IR, SYN, G.A.D.S./Hnd, RS, ERS, B.W.L.  
Ac, T.M.RC, SM, PA, PSG, CB, Di.

**CRYMBLES (IRELAND)**  
67-71 Dublin Road, Belfast.  
G.A.D.K.B.W.S./Di, Ac, RS, SM.

**Evans Musical**  
53 Bridge Street, Leburn 02382 2011  
ERS, EK, K.L.H.Ac, T.M, RC, PA, PSG, Di  
EC, RCN, O, IR, SYN, G.A.O.S./Hnd, MA, Spec.

**SPORTS & MUSIC CENTRE**  
73-75 Broughshane Street, Ballymena  
0266 41792  
1/3 The Strand Coleraine  
0265 51665  
G.A.D.K.P.A.S, PSG, M, ERS, MA, W, Ac, T.  
Session Music, 169, Spencer Road,  
Londonderry.

## ISLE OF MAN

**ISLAND MUSIC CENTRE**  
2 Market Hill, Ramsey.  
0624-813686  
52 Duke St., Douglas.  
0624-8752  
Di, Syn, G.A.D.S./p/x, RS, SFI, T.M, JVC, Spec.  
SM, PA, Di, Sole Agents: Lowrey, Thomas,  
Welson, Wurlitzer, O. Service. Educ. Records

## KENT

**Drumland Percussion**  
71 Lowfield Street, Dartford  
Dartford: 24449

**PEPPER MUSIC**  
86 Northdown Road, Margate  
0843 23205  
G.A.D.PA RS

**MATTHEWS MUSIC STORE**  
20 The Broadway, Maidstone  
0622 673355  
IR, SYN, RCN, O, G.A.D.K.B.W.S./D.L.H.  
PA, PSG, S/Hnd, MA, RS, EK, M, P.

**MOSS MUSIC LTD**  
67 Canterbury St., Gillingham  
Medway (0634) 576381  
G.A.D.S./RS, ERS, PA, B.W.T.M, Di

**KENNARDS**  
101 Longbridge Road, Birmingham B15  
021 622 2211  
G.A.D.EK, SYN, B.W.S, Di, SFI, PSG, S/Hnd  
RS, M, Spec, PA, RCN, O, SM

## LANCASHIRE

**BARRATTS**  
1 Meadow Street, Preston  
0772 55628  
IR, SYN, RS, ERS, EK, G.A.D.B.W.S./D.L.  
H.P.A.M.P.

**FLAME AMPLIFICATION**  
100 Eastbank St., Southport, Lincs  
0704 37050  
G.A.EC, RCW, S, Di, L.P.A.S/Hnd, M.  
RC, CB for Cab's and PA Systems

**FLAME AMPLIFICATION**  
100 Eastbank St., Southport, Lincs  
0704 37050  
Flame Amps, Flame Cabs and  
Flame PA Systems

**HOBBS MUSIC**  
3/5/7 Mary Street,  
Lancaster.  
Tel.: Lancaster 60740  
EC, O, IR, SYN, G.A.D.S./Hnd, MA, RS, Spec.  
ERS, EK, K.B.W.L.H.Ac, SFI, M, RC, SM,  
PA, CB, Di.

**PALL MALL MUSIC**  
58 Pall Mall, Chorley, Lincs  
025 72 71124  
G.A.S./Di, EK, M.P.A.S/Hnd, ERS, CB

**WOODS PIANOS & ORGANS**  
1a-b Manchester Rd., Burnley  
0282 38709  
Syn, G.A.D.K.B.W.S./Ac, PA, RS, ERS, EK,  
M, RC, SM, T, EC, O, IR, S/Hnd, P.

**WOODS PIANOS & ORGANS**  
84 Church St., Preston  
0772 52865  
Syn, G.A.D.K.B.W.S./Ac, PA, RS, ERS, EK,  
M, RC, SM, T, EC, O, IR, S/Hnd, P.

**HW AUDIO**  
156 Bradshawgate, Bolton BL2 1BA  
0204 26639  
PA, Di, L, MA, A, M, CB, H, RS

**SBI** Regent St. Showrooms,  
Regent St., Coppull,  
Chorley, Lancs.  
0257 791846,  
G.A.D./Di, L.P.A, RS.

**WOODS PIANOS & ORGANS**  
15-17 Manchester Rd., Bolton  
0204 27171  
Syn, G.A.D.K.B.W.S./Ac, PA, RS, ERS, EK,  
M, RC, SM, T, EC, O, IR, S/Hnd, P

**LEEDS**  
**STEPHENS MUSICAL**  
70 New Bridgate, Leeds LS1  
0532 34710

**SCHEERERS**  
8 Merrian Centre, Leeds LS2  
0532 32401/2 H.H. Main Dealers.

## LEICESTERSHIRE

**CENTRAL MUSIC LTD**  
12 New Bond Street, Leicester  
0533 638681  
EC, O, R, I, R, S, E, K, ERS, F, A, D, B, W, Di,  
S/Hnd, T.

**CUSACK'S MUSIC**  
33 Braunstone Gate,  
Leicester,  
0533-548517  
CB, PA, G.A. ERS, Di, H.

**SOUNDPAD MUSIC CENTRE**  
64 London Road, Leicester  
0533 20760  
G.A.K./Di, L. (R.S) PA Peavey Powerhouse,  
Gibson Star Dealer, Pearl, HI and Carlisbro.

## LIVERPOOL

**HESSYS MUSIC CENTRE**  
62 Stanley St., Liverpool 1  
051-236-1418  
G.A.D.K.B.W./Di, L.R.S.

## LONDON

**STEPHEN DELFT**  
242 Cable Street, E1  
01 790 7028  
G.A.SFI, CB, 24 hrs. RS.

**F.D. & H. MUSIC**  
138-140 Charing Cross Rd., London WC2  
01 836 4766  
G.A.B.W.S./M, RS, SM, K.

**ROSE-MORRIS RETAIL**  
11-13 Shaftesbury Avenue, London W1  
01 432 2211  
G.A.D.EK, SYN, B.W.S, Di, SFI, PSG, S/Hnd  
RS, M, Spec, PA, RCN, O, SM

**MANUSCRIPT**  
107 Friern Barnet Road, London N11  
G.S.W./TG, SM, A, B, M, Ac, EK.

**Monterey Music Co.**  
69 Station Rd, Harwell W1  
01 479 4595  
Spec. in vintage Guitars and Amps  
H.P.A. ERS S/Hnd PA Consultant

**MUSIC HOUSE (S.E. ENI)**  
375-377 Lewisham High St., SE13  
01 690 2205  
G.A.D.K.S./Di, L.P.A, RS, Spec.

**MUSIC HOUSE (S.E. ENI)**  
375-377 Lewisham High St., SE13  
01 690 2205  
G.A.D.K.S./Di, L.P.A, RS, Spec.

**Holiday Music LTD**  
EC, RCn, G.A.S, S/Hnd, MA, RS, ERS, H, M, RC, PA, CB, E.S.  
579 HIGHROD, LEYTONSTONE, LONDON E15. Tel. 01-558-2666.

**HENRITS DRUM STORE**  
112-114 Wardour Street,  
London W1.  
01-734 7121  
All makes of percussion and accessories  
supplied usually from stock or certainly to  
order.

**CHASE MUSICIANS**  
22 Chalton Street,  
London NW1.  
01-387 7449  
EC, O, IR, SYN, G.A.S/Hnd, MA, RS, Spec, Syn.  
ERS, EK, K.H.T.M, RC, PA, CB.

**PRO-DRUM PRODUCTS**  
112-114 Wardour Street,  
London W.1.  
01-437 1836  
Distributors of staccato fibre-glass concert  
tom toms and the drumstore multi-purpose  
drum key. Call John Vernon any time.

MAURICE PLAQUEY  
358-360 Uxbridge Rd., Shepherds Bush W12  
01 749-1204  
G.A.D.B.W.S. Ac PA, RS, P

**macari's**

MACARI'S LTD  
122 Charing Cross Road, WC2  
01 836 9149  
G.E.K. Ac SM RS  
MACARI'S MUSICAL EXCHANGE  
102 Charing Cross Road, WC2  
01 836 2856  
A PA, D, R, S

SESSION MUSIC LTD  
163 Mitcham Rd., Tooting SW17  
01 872 3413  
G.A.D.S.S./Hnd RS ERS L M SM PA, D, R

DAVE SIMMS MUSIC CENTRE  
15 The Grove, Ealing W5  
01 560 0520  
Spec. G.A.P.A.S./Hnd, D, L, D.

TOP GEAR  
5 Denmark Street, WC2H 8LP  
01 240 2118  
Spec. G.A.D.P.A., EC, Ac, CB, M, RC, P, MA,  
RS, PSG, S/Hnd

WESTERN MUSIC CO. LTD  
50 The Broadway, Wimbledon SW19  
01 540 0494  
G.A.D.K. RS, T.

WESTERN MUSIC CO. LTD.  
130-132 King St.,  
Hammersmith W6,  
01-748-5824  
G.A.D.K. RS, T.

**MANCHESTER**

**THE GEAR CELLAR at SWANS**

84-86 Oldham St, Manchester Tel: 061 228 3871  
G.Syn G.A.D.S.P.A.L.P.K.B.W.S.M.P.S.G.

**AL.MUSIC**

85 OXFORD STREET, MANCHESTER 1.  
061 228 0340

SYN G.A.D.K.EC RCN O RS ERS S  
EKD L SFI PA, S/Hnd M RC P CB, Spec.  
MAIN AGENTS - OMEGA 1, HH, ROLAND  
MUSIC MAN, PROJECT LIGHTING, MARTIN GUITARS  
H-AIL AMPS, STRAMP, CITRONIC DISCOS  
contact - Graham and Ann for personal service

BARRATTS  
8a Oxford Road, Manchester M15 6AA  
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., L, H,  
SFI, PSG, P.

**NEWCASTLE-UPON-TYNE**

BARRATTS  
158 Newbridge St., Newcastle-upon-Tyne  
0632 22331  
IR, Syn, RS, ERS, EK, G.A.D.B.W.S.D., L,  
H, P, A, M, P.

LEWIS MUSIC  
16 Bedeburn Road, Jarrow  
Jarrow NE77 7P4  
D.P. Sp MAP SCB.  
EC, G.A.S/Hnd, RS, H, T, M, RC, PA, IP is  
already in P= PA). Also Sp = Spec.

**NORFOLK**

NORWICH SOUND SYSTEMS  
80 Prince of Wales Road, Norwich  
Norwich 611989  
H.E. RS, RS S/Hnd, S.D.A.G. SYN  
EC, D, PSG, AC, PA, M MA - Travnor,  
Pearl, Gibson, Star Dealer, Yamaha and  
Disco Sound (in MA).

**Cookes Band Instruments**

**NORTHAMPTONSHIRE**

MIDLAND MUSIC CENTRE  
6 Cowper St., Northampton  
0604 36832  
G.A.D.K.B.W.S.D, RS, T, IR.

CLEMENTS PIANOS LTD  
21-23 Derby Road, Nottingham  
0692 47912  
G.A.D.P.B.W.S.S.M, RS

HARDY SMITH MUSIC CENTRE  
2a Outram St., Sutton-on-Ashfield, Notts  
Mansfield 56242  
G.A.D.K.B.W.S.RS, SM

**NOTTINGHAMSHIRE**

**FUNKSHUN**

156-158 Wellingborough Road,  
Nottingham.  
(0604) 34100  
RCn, O, IR, Syn, G.A.D.S.S/Hnd MA, RS, Spec.  
ERS, EK, K, L, H, M, RC, SM, PA, CB, D.

**Farnsworth Music**

134 Radford Boulevard,  
Nottingham. (0602) 76516  
Syn, G.A.S.S/Hnd, RS, ERS, K, D, W, H, T,  
M, SM, PA.

**SCOTLAND**

BRADLEYS MUSIC LTD  
69a West Regent St., Glasgow  
041 332 1830  
EC, RCN MA, HS Spec. G.A.D.B.S.P.A.  
S/Hnd, T.M.P.

JERRY ALLEN ORGANS LTD  
28 John Fennie St., Kilmarnock, Ayrshire  
0563 28450  
G.A.D.K.D.  
1075 Pollokshaw Road, Glasgow  
041 6499800

**Charnley**

177 Main Street, Wotho  
06983 73097 G.A.D.S.D, RS

**FORTH VALLEY MUSIC**

3-7 Elm Wood, Falkirk  
Tel: 01324 31477  
FC, Syn G.A.D.S.E.RS, EK, K, Ac, M, P, A

THE MUSIC BOX  
7-9 Whitburn Road, Bathgate  
0506 52893  
G.A.D.K.B.W.S.RS, SM.

**SHROPSHIRE**

**THE GEAR CELLAR at SWANS**

69 Mardol, Shrewsbury Tel: 05284  
G.Syn G.A.D.S.P.A.L.P.K.B.W.S.M.P.S.G.

**STAFFORDSHIRE**

THE ABBEY MUSIC CO  
46 Market Place, Burton-on-Trent  
0283 68404  
G.A.K.B.W.RS, T, Spec, D.

LANGDOONS ELECTRIC MUSIC  
27 Victoria Street, Wolverhampton  
0902 27741  
Lc, RCn, Syn, G.A.D.S.S/Hnd, RS, ERS, L, PA,  
D, Gibson Star dealer, Main Custom USA  
Custom amplification

NORMANS MUSICAL INSTRUMENTS LTD  
1 Litchfield St., Burton-on-Trent  
0283-42401/61526  
G.A.D.K.B.W.S.RS, Gibson Star Dealer  
H/H, Boosey & Hawkes, Premier, SM, Pianos

THE ABBEY MUSIC CO.  
46 Market Place, Burton-on-Trent.  
0283 68404  
EC, IR, S.S/Hnd, MA, ERS, EK, L, Ac, SFI, M, RC,  
SM, PA, D.

**SURREY**

ANDERTONS MUSIC CENTRE  
5 Stokefields, Guildford  
0483 75928  
G.A.D.K.W.RS, D, ERS, IR.

ABC MUSIC  
14/16 High Street, Addlestone, Surrey.  
97 40139/54877  
96 High Street, Esher.  
78 66436  
EC, RCn, O, IR, Syn, G.A.D.S.S/Hnd MA, RS,  
Spec. ERS, EK, K, B, W, L, H, Ac, SFI, T, M, RC,  
SM, PA, PSG, CB, D.

JOHN KING SOUNDS  
6 Richmond Road, Kingston  
01 546 9100/1924  
G.A.D.K.B.W.D, H

CROYDON MUSIC STUDIOS  
40 Station Road, West Croydon, Surrey  
01 688 0628  
G.A.D.S.S/Hnd, RS, B, W, Ac, SFI, M, SM  
MA (Premier, MXR)

DOWN UNDER  
82 High Street, Redhill RH1 3JG  
01 916 8821  
G.A.K.D.W.H.RS

**DOWN UNDER KEYBOARD HARMONY**

82 High Street,  
Redhill, Surrey.  
91-68821  
EC, RCn, O, IR, Syn, G.A.D.S.S/Hnd MA, RS,  
Spec. ERS, EK, K, B, W, L, H, SFI, T, M, RC, SM,  
PA, CB, D.

WESTERN MUSIC CO LTD  
53-59 High Street, Croydon  
01 688 1248  
G.A.D.K. RS, T.

**SUSSEX**

**Hastings sound**

37 Kings Road, St. Leonards-on-Sea  
0424 428970 G.A.D.O.S.S/Hnd RS

CASSMUSIC  
29 South Street, Eastbourne, Sussex  
0323 37273  
EC, G.A.D.S.S/Hnd MA, RS Spec ERS, EK, K,  
B, W, SFI, M, RC, SM, PA, CB

**SOUTHERN MUSIC**

34 Waterloo Street,  
Hove, Sussex,  
0273 733367/774536  
EC, RCn, IR, Syn, G.A.S.S/Hnd, MA, RS,  
Spec. (G.A.) ERS, EK, L, H, SFI, M, RC,  
PA, CB, D.

**TYNESIDE**

**Rock City Music Co**  
48 CLOTHMARKET NEWCASTLE  
Tel: (0632) 24175  
THE NORTH'S BEST  
FOR GUITARS, AMPS & CABS  
KEYBOARDS, EFFECTS, DISCO  
PERCUSSION, REPAIRS.  
Mail Order, H.P. Available

**White**  
WHITE SOUND EQUIPMENT  
3 Albion Close, Sunderland,  
Tyne & Wear. 0783 78058  
Spec. RS, EC, O, IR, Syn, G, D, S/Hnd,  
ERS, EK, K, B, W, L, H, SFI, M, RC, SM,  
PA, PSG, CB, D, MA (Peavey, Marshall,  
Amaron, Carlsbro, Pearl, Rodgers, Ludwig,  
DJ Electronics, SAI, Gibson, Fender,  
Music Man.)

WALES  
JOHN HAM  
75-76 Mansel St., Swansea, Wales  
0792 50968  
G.A.D.K.B.W.D, RS, SM, Tape Demo Gear

PETER NOBLE LTD  
11 Station Road, Llanishan, Cardiff  
0222 753911  
EC, Syn, G.K.B.D.P.W.S.D, L, S/Hnd, M  
Spec. PA, ERS,  
Yamaha and Pearl pro centre

GWENT MUSIC CO.,  
Kingsway Centre,  
Newport, Gwent,  
06333 57505  
EC, O, IR, Syn, G.A.D.S.S/Hnd, MA, RS, Spec.  
ERS, EK, K, B, W, Ac, M, SM, PA, D.

SOUND CENTRE  
129 High Street, Bangor  
0248 53320  
A, D, L, RS, SFI, H, SM, Spec. G, D, D.

BERT VEAL (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, D, L, Ac, SFI, PA, PSG, S/Hnd,  
T, M, SM, P.

SOUNDWAVE MUSIC CENTRE  
51 Gwent Square, Cwmbran, Gwent, Wales  
06339 2501  
SFI, T, M, RC, SM, PA, CB, D, EC, O, IR, Syn, G,  
A, D, S/Hnd, RS, ERS, EK, B, W, H, Ac, MA,  
Music Man, Gibson Star Dealer, John Birch.

**WILTSHIRE**

**Mitchell Music & Electronics**  
1 Queen St., Salisbury,  
Wilt 22 2249  
CB, H.S. AMER, RS, RCN, SAI, G.A.D.R.E.C. D, MA - Gibson Star Dealer  
L.P. M. P. S. G. D. H.

**WARWICKSHIRE**

CENTERSOUND  
11 Castle Street, Rugby, Warwickshire  
0788 74566  
RCN, O, IR, Syn, G.A.D.S.S/Hnd MA, RS, ERS, EK,  
L, H, M, RC, SM, PA, D.

**BUZZ STOP**  
11 The Court Street,  
Eggenston, N. Yorks. Wetherby  
01924 32781  
EC, Syn, G.A.D.S.S/Hnd, RS, EK, K, B, W,  
Ac, M, SM, D.

**YORKSHIRE**

**J.S.G. MUSICAL SERVICES**

165 Main St, Rugby, Yorks. 01924 68443  
A.D.S.H.P.S.Hnd RS ERS M RC P  
EC P  
W.H. Carlsbro, Custom Sound, Gibson Star  
Dealer Agents

**Kitchens**  
26 North Parade, Bradford 0274 23577  
G.A.D.K.B.W.D, L, RS  
33 Peel Street, Barnsley 0226 5867  
G.A.D.K.B.W.D, L, RS  
27/31 Queen Victoria Street, Leeds 1  
Higham House, New Bridge St,  
Newcastle-Lpon-Tyne 0632 22965

MUSIC GROUND  
Sibdon Road, Stamford, Doncaster, South  
Yorkshire  
0302 841398  
EC, RCN, O, Syn MA, RS, G&A Spec ERS, EK,  
D, K, PSG, S, Hnd, T, M, RC, P  
PROFESSIONAL MUSIC CENTRE  
13 Netherhall Rd., Doncaster  
0302 86157  
G.A.B.W.K.T  
EC, RCn, O, IR, Syn, D.S.S/Hnd, MA, RS,  
Spec. organs, perc. ERS, EK, M, H, RC, PA.

**JIGSAW SOUND CENTRE**  
2 Station Road,  
Ossett, W. Yorks.  
(0924) 277981  
Fender, Gibson, Vox, Carlsbro, Orange,  
WEM, Custom, Pearl, Rodgers, Area agents  
for MM equipment.

**KEY FOR DEALER GUIDE**

- EC Echo chamber
- RCn Re-Coning
- O Organs
- IR Instrument Rental
- Syn. Synthesizers
- G Guitars
- A Amplifiers
- D Drums
- S Strings
- S/Hnd. Second Hand
- MA Main Agents
- RS Repair Service
- Spec. Specialists
- ERS Electronic Repairs
- EK Electric Keyboards
- K Keyboards
- B Brass
- W Woodwind
- L Lighting
- H Hire
- Ac Accordions
- SFI Special Fretted Inst.
- T Tuition
- M Mikes
- RC Reconditioning
- SM Sheet Music
- PA Public Address
- PSG Pedal Steel Guitars
- CB Custom Building
- Di Disco

# ★ STUDIO GUIDE ★

**ALVIC STUDIO**  
13 All Saints Road, Wimbledon, SW19.  
01-542 5696  
4 T Cap. 8 £5.00 p/h. ba, tf. R-R. CP  
R-C Piano. M.S.SM ba. Drums. Amps

**ANEMONE SOUND FACILITIES LTD**  
D'Arbly House, 10 Poland Street, London  
W1V 3DE  
Tel: 01 439 9611/2  
8T £12 p/h £100 p/d 4T £7.50 p/h Cap 10  
KA Synthesiser and amps. D & DBX CP  
R-R R-C d-t D & DBX M.S. cassette high-  
speed duplication.

**ARROW SOUNDS LTD.**  
6-10 Jacksons Row Manchester 2  
061-633 9417/832 8457  
16T Cap 35 £25.00 p/h p/d ba. D. R.-R.  
CP. R-C. R-Cr. d-t Ka O. OTC  
after 9.00 pm MS SM

**BASING ST. STUDIOS (ISLAND)**  
8-10 Basing St., London W11.  
01 229 1229  
Studio 1 24 T £38p/h Cap 80  
Studio 2 24 T £38p/h Cap 20  
R-R. C-Cr. £10p/h D OTC

**BIRD SOUND STUDIOS**  
Wedgcock Industrial Estate, Warwick.  
0926 45123  
8 T £10p/h Cap. 20 DC/ba. R-R-C DBX OTC  
£2 p/h

**CBS RECORDING STUDIO**  
31-37 Whitfield St., London W1  
01 636 3434  
Studio 1 £48 p/h 24T Cap 75  
Studio 2 £48 p/h 24T Cap 25 & automated desk  
Studio 3 £45 p/h 24T Cap 12  
DC, R-R-C-Cr. D. All studios multi-track.

**ELECTRIC CAT RECORDING STUDIO**  
31 Cedar Road, Sherwood Rise,  
Nottingham.  
(0602) 608955  
4T £8 p/h Cap 10.  
TF, R-R, CP, RC, SM, M.S. KA, Bechstein,  
Rhodes, Hammond, ARP, Drums, Amps.

**ESCAPE STUDIOS**  
Island Farm, Edgerton, Kent  
023 376 259  
16 T £350p/d Cap 10 D Ac

**GOOSEBERRY STUDIOS**  
19 Gerrard Street, London W1  
01 437 6255, 01 734 2257  
16 T £16p/h  
8 T £10p/h Cap 10  
D, TF, ba, R-R, CP, KA, R-C, d-t, T, M.S.

**HORIZON STUDIOS**  
Horizon House, Coventry CV3 6QS  
0203 21000  
16T £19 p/h 8t £14 p/h 4T £10 p/h 2T £6 p/h  
Cap 20 DC/ba R-R-C Ka SM/ba Special rate  
day bookings

**IMPULSE RECORDING STUDIO**  
71 High Street Epsom  
Wallsend NE28 7RJ  
Tyne & Wear  
0632 624999  
8T Cap 25 £12 p/h DBX 1f R-R-CP Ka R-C d-t  
OTC SM

**R G JONES RECORDING STUDIOS**  
Beulah Road, Wimbledon SW19  
01 540 4441  
24T £34 p/h, 16T £24 p/h, Cap 40 R-R-C O  
OTC, Studio 2 - Stereo only £7 p/h

**KINGSWAY RECORDERS LTD.**  
129 Kingsway, London WC2  
24 T £38p/h Cap 35  
16 T £34p/h DC/ba D 01-242 7245

**MAJESTIC RECORDING STUDIO**  
146 Clapham High St., London SW4  
01 622 1228/9  
24T £28p/h Cap 50 R-R-C DBX CP OTC £5p/h

**MANOR STUDIO**  
Shipton Manor, Shipton-on-Cherwell,  
Kidlington/Oxford.  
08675 2128  
24 T £600 per day, Quad, Cap. 20, D.  
Accommodation: 8 bedrooms & resident chef

## Magritte Music

15 Holloway Lane, Harmondsworth,  
West Drayton 01-897 9670  
16T £29 p/h, 8T £10 p/h, Cap. 12, DC/ba, tf,  
DBX, SM, Ka, R-R-C, all rates negotiable  
Fender, Marshall and more available.

**MORTONSOUND.**  
13-15 Carlisle Square,  
Newcastle-Upon-Tyne  
0632-28802  
8T £5 p/h Cap. 10 DC R-R-C-Cr.

**MUSHROOM STUDIOS**  
18 West Mall, Clifton, Bristol.  
0272-35994  
8T, £10.50 p/h Cap 17.  
R-R-C-Cr CP DBX D Ka  
Disc Pressing, Accommodation  
6 Bedrooms, Self Catering.

**OBIDEC RECORDING STUDIOS,**  
Dorvic Building, Quarry Lane,  
Chichester, West Sussex.  
0243-83265  
8T £9 p/h £65 p/d (10 hr.) £250 p/wk.  
Cap 16 tf R-R, R-C, d-t, CP, M.S. Ka,  
Dc/Ac/SM/ba.

**PATHWAY STUDIOS.**  
2A Grosvenor Avenue,  
London N5.  
01-359 0970  
8T £8 p/h, Cap. 6, R-R, CP, R-C, d-t.

**PHOENIX THEATRE**  
Upper Brown Street, Leicester.,  
0533-57589  
2T £3,000/h £30,000/d (12hrs)  
Cap 16 1f R-C Ka M S SM ba  
No setting up time charge.

**MAURICE PLACQUET**  
Pinewood Ltd., Pinewood Film Studio  
Pinewood Road, Iver, Bucks,  
01-753 654 571/753-651 700  
Cap 60, when touring ring Iver 654571  
for the following. Rehearsal's, Sound  
Recording's, Promotional Filming.  
Instruments available including  
amplification, PA System,  
Steinway Grand Piano  
Hammond B3 & C3 organ's, Ac/ba, SM.

**PLUTO STUDIOS**  
3 Waterloo Road, Stockport, Cheshire  
061 477 0434  
16T £16 p/h 8T £14 p/h Cap 5 Dtf R-R-R-C  
Ka

**PIPER SOUND STUDIOS**  
50 Cheapside, Luton Beds.  
0692 805875/27195/26693  
8T £8 p/h 16T £10p/h inc. tape Cap 10  
R-R-C D, DBX, Comps/Lims, Sm, tf, CP,  
Ac/ba, I.A. Ampex Mastering Echo Plates,  
Pool Table, TV.

**QUEST STUDIO**  
71 Windmill Road,  
Luton, Bedfordshire.  
0582-414297/36950  
8T, Cap 8, £6.00 p/h, p/d, ba.  
D, tf, R-R, CP, R-C, Dc, ba.  
d-t, Piano, M.S. Ac, ba, SM.  
Eventide effects.

**THE OLD SMITHY RECORDING STUDIO**  
The Old Smithy  
1 Post Office Lane, Kemsey, Worcester.  
0905 82065916  
16T £20p/h p/d ba, Cap. 35 D, f, R-R-R-C  
Dc, CP Ka No OTC M.S. VS. Ac, SM.

**RAMPORT ENTERPRISES LTD**  
115 Thessaly Road, London SW8  
01 720 5066  
Cap 40 8am-12noon 12T & 24T £30 p/h  
12noon - 6pm 16T £35 p/h 24T £40 p/h  
6pm-8am next day flat rate w/ends Bank  
Hols. 16T £40 p/h 24T £45 p/h £12 p/h  
editing copying D & DBX Bosenardler,  
Rhodes, Hammond B3 Q M S (f R-R R-C  
R-C R-Cr d-t SM ba

**REGENT SOUND STUDIOS**  
4 Denmark St., London WC2  
01 836 6769  
16T £16p/h Cap 20 R-R-C OTC Sound  
Techniques Desk 18 x 16

**RIVERSIDE RECORDINGS**  
78 Church Path, Fletcher Road,  
Chiswick, London W4  
01 994 3142  
16 T £16p/h Reductions on block bookings.  
8 T £14p/h, OTC £2p/h, f, R-R CP  
Kba, R-C R-C, d-t 18T Mobile, Beckstein  
session musicians.

**ROCKFIELD STUDIOS**  
Amberley Court, Rockfield Rd., Monmouth  
0600 2449/3625  
Studios 1&2, 24 T, 40 Channel Custom  
Bull Mixer, Natural Acoustic Echo Room,  
Auxiliary equip. to cover all eventualities.  
ALSO Acoustically insulated Rehearsal  
Studio in 10 Bedroom country house.  
1½ miles of fishing available. ALL prices  
on application only.

**SARM STUDIOS**  
Osborn Hse., 9-13 Osborn St., London E1  
247 1311  
24 T £42p/h 16 T £42p/h, recording & mixing  
Cap. 30 R-R-C-Cr, D, Dlx (NO OTC)

**SEPTEMBER SOUND STUDIOS**  
38 Knowl Road, Golcar,  
Huddersfield, HD7 4AN.  
0484-658895/6  
16T, Cap 45, £15.00 p/h, p/d, ba, D, R-R, R-Cr, R-C  
ba, CP M.S vs. Ac, ba, SM, ba, Oba, Ka, Drums

**SOUND CONCEPTION**  
85 Ashley Road, Montpelier,  
Bristol 6.  
Tel: 0272-554721  
4T £5.00 p/h Cap 10  
R-R R-C Ka

**SPACEWARD SOUND SYSTEMS**  
19 Victoria Street, Cambridge.  
(0223) 64263 (24 hours)  
16T from £85 p/d, £9 p/h  
2T £6 p/h (only)  
(daily rate 10am to 3am, includes ½" tape)  
Cap 7Dtf R-R-C, CP, Dc, d-t, CP, no OTC,  
Ka SM & Ac ba.

## Sound Communication (Publishers) Ltd.,

Devsbury, W. Yorkshire.  
(0924) 469436  
Loop-bin cassette copying and R-R  
copying. Dolby A & C facilities. Blank  
cassettes of any length supplied.

**STRAWBERRY RECORDING STUDIO**  
(UK) LTD  
3 Waterloo Rd., Stockport Cheshire  
061 480 9711  
24 T £30p/h 16 T £25p/h 8 T £18p/h 2T -  
Stereo & mono £15p/h Cap 35, tf, D, R-R, R-C

**STUDIO GASTE, (FRANCE)**  
5 Rue du Bois de Boulogne, Paris 75016.  
500-53-53  
16 T £300p/d, No OTC Cap 10.  
CP DBX D Ka, Ac,  
ba, Steinway, Fender Pianos,  
Hammond, Syn. Many special effects.

**SUN STUDIO**  
34-36 Crown Street, Reading, Berks.  
073459 5647  
8T £10 p/h £100 p/d £190 per 2 days, £280  
per 3 days Cap 10 R-R-C CR SM, AC/BA  
Cassette duplication plant, Record Production  
"Give life to your music"

**SURREY SOUND STUDIO**  
20 Kingston Road, Leatherhead.  
Tel. 53 78855  
16 T £15.00p/h £150p/d (12hrs)  
8T & 4T £10.00p/h Cap 45 of 4 to 8/16  
R-R R-C CP Grand Piano other K by  
prior arrangement d-t MS AC Ba SM any  
Catering facilities

**SUSSEX STUDIOS (CONEYHURST) LTD**  
Coneyhurst Court, Coneyhurst,  
Nr. Billingshurst, Sussex.  
Tel: Cootham 485/Horsham 67845  
4 T £4.50 p/h daily & weekly ba, Cap 12.  
D, f, R-R, CP, R-C, R-Cr Dc, ba, d-t O Ms, Ka, Ac,  
Sm ba Meals.

# ★ HIRE GUIDE ★

**ANDROMEDA**  
1 Thirlmere Gardens, Belfast, BT1 5SEF  
0232 772491  
P.A. 25cm, SL, Sc, T & C, ME.

**BAN MANAGEMENT,**  
39A Rawstone Street,  
London EC1V 7PN.  
Tel: 01-278 2270  
ME, T & C, SL Ba PA  
Comprehensive repair service.

**CASCADE MUSIC & HIRE,**  
42-44 Upper Tooting Road,  
Tooting, SW17  
01-672-3997  
ME, T & C, ba, SL, Sc  
Di, CM, PA.

**CERWIN VEGA UK**  
281 Balmoral Drive, Hayes, Middlesex.  
01 573 1566  
ME, T & C, CM, PA

**DRUMSTORE HIRE**  
112-114 Wardour Street,  
London W1  
01-437 1836  
All makes of percussion equipment  
supplied for hire. 24 hour service.  
Call any time.

**EUROPA CONCERT SYSTEMS**  
EUROPA CONCERT SOUND LTD  
11A Sharpleshall Street, London NW1.  
01 586 3846  
PA Mixers T & C, CTM.

**GERMANY**  
FLASH LIGHT & SOUND GMBH  
Bussestrasse 11, 2000 Hamburg 60  
Germany  
010 4940 5115527/69  
ME T & C, SL, Sc, CM, CTM, PA.

**H.W. AUDIO**  
156 Bradshawgate, Bolton, BL2 1BA.  
(0204) 26639  
D.I.Y. or T & C. Instrument Amps, P.A. and  
Di, S.L. and Di, L.

**THEATRE PROJECTS SERVICES LTD.**  
11-13 Neals Yard, Monmouth St.,  
London WC2  
01 836 1168  
Studio A 8T £12p/h and piano Cap 15  
(demo tape)  
Studio B M.S. £12p/h Cap 6 (voice overs)  
R-R-C OTC.

**WEST OF ENGLAND SOUND LTD.**  
14 Swan St., Torquay, Devon  
0803 550020/39168  
Studio 1 8 T £20p/h Cap 30  
Studio 2 8 T £20p/h Cap 10  
R-R-C-Cr CP Pro P.A. Equipment for hire

**WINDRUSH RECORDING STUDIO**  
(Between Oxford and Gloucester)  
High Street, Bourton-on-the-Water,  
Gloucestershire  
(0451) 20172  
4T £5.50 p/h £50.00 p/d, Cap 7, tf,  
R-R, R-C, d-t, CP, (K.A.G.D. ba) Ac, ba,  
M.S. SM, ba.

## KEY FOR STUDIO GUIDE

T	Track
Cap	Capacity
p/h	per hour
p/d	per day
D	Dolby
tf	Transfer facilities
R-R	Reel to Reel
CP	Copying
ba	to be advised
Ka	Keyboards available
R-C	Reel to Cassette
R-Cr	Reel to Cartridge
Dc	Disc Cutting
d-t	Disc to tape
Q	Quad
OTC	Overtime charge
M	Mono
S	Stereo
fcf	Fully coated film
VS	Video Studio
Ac	Accommodation
ba	by arrangement
SM	Session Musicians

**JULIAN'S S.I.R. LTD.**  
2 Churchill Road, London NW2.  
459 7294/5  
M.E. Demo room, repair workshop.

**KELSEY ACOUSTIC HIRE**  
1 Alba Place, London W11.  
01 727 1046  
ME T & C CM, CTM, PA.

**MAURICE PLACQUET HIRE**  
69 Jeddou Rd., London W12  
01-749 1204 ?  
PA, ME, T & C RnR, Di, Cm, CTM.

**PILEDRIIVER EQUIPMENT HIRE,**  
9 West Richmond Street, Edinburgh.  
031-668 2444  
ME T & C, SL, Di, PA, 16T Channel Mixer

**R AND C MUSIC**  
41 Malvern Road, Orpington,  
Tel Orpington 72278  
Up to 4 K/w. 16/24 Channels. Full  
tour service.

**STANDISH LIGHT & SOUND HIRE CO.**  
358 Preston Rd., Standish, Wigan  
0257 421603  
PA to 3,000 watts Di, T & C, SL

**SUTTON MUSIC CENTRE**  
64 Haddon Road, Sutton  
01 642 2838  
G.A.D. B.W.S.M.R.S.H.D.

## KEY FOR HIRE COMPANIES

ME	Musical Equipment
T & C	Transport & Crew
RnR	Rehearsal Rooms
SL	Stage Lighting
Sc	Security
Di	Disc
CM	Channel Mixer
CTM	Concert Tour Management
PA	Public Address

# ★ CLASSIFIED ★

## ACCESSORIES SONGWRITERS

**HANDCRAFT STRINGS**  
per set r. l. t.

1976 Original light.	£1.95
1977 Original med.	£1.95
1990 Bronze light.	£1.95
1990 Silk & steel.	£1.95

From all good music shops



### SONGWRITERS

Songwriter Magazine explains copyright, royalties, publishing etc., and interviews famous songwriters. Free copy from

**INTERNATIONAL SONGWRITERS ASSOCIATION LTD (IMRW), Limerick City, Ireland**

**GAS Recording Gateway Audio Studio**  
4 Track £4p/h Teac, Revox, Tannoy, Quad, H.H., AKG  
Allen & Heath. Session band always available to help you produce your own demo.  
Balham Tel: 01-673-7316

## SPEAKER REPAIRS

### RETAILERS

**Rickenbacker**  
Professional Guitars

### SOUND CENTRE IMPORT DEPARTMENT

We always have Rickenbacker 400i stereo bass guitars in stock.

Remember!! There's always a free case  
Roger Jenkins on (0222) 396279  
9 St. John's Square, Cardiff.

THOMAS, ALLEN, ELECTRA, VOICE, BAISSE, PENSER, REF, KEF, VOIT

**QUALITY**

GOODMAN, CELESTION, FANE, FEEDBACK, ELAC, WINDWARD, RICHMOND, ALLEN, EMERSON, BAKER, LEAK

**SPEAKER REPAIRS**

JOHNSON & JONES  
66 Daleton Lane, London E8 3AH  
Phone 01-254 9331

**TOOTLEBUG FOR WOODWIND & BRASS BUGS**

### OCTAVE DIVIDERS

A. R. TOOTELL  
9 Mendip Close  
ST. Albans  
HERTS

Tel. 60525

## RECORD PRODUCTION

**CASSETTE DUPLICATION**  
including LABELS PRINTED and FIXED (colour) also INSERTS PRINTED (colour). Competitive rate for whole package. Prices on application. Contact for further details:-

**THE COTTAGE SOUND STUDIO, FORRES, MORAYSHIRE, SCOTLAND. IV36 0SS. Tel: FORRES (03092) 3834**

## HIRE SERVICES

**EQUIPMENT HIRE**  
ITAM 805, 8 track, DBX  
REVOXES, TEAC

(Industrial)  
RADIO MICS, MIXERS,  
MICS, STANDS, CABLES,  
MULTICORES, CASSETTE DECKS etc. etc.  
C.A.V.S. Ltd. 171 Chase Side, Enfield, Middlesex.  
Tel: 01-363-6125

**DISC CUTTING**  
Stereo/Mono Masters and Demos cut on our Scully lathe with ME/76 uk Cutterhead. Masters sent to any pressing plant. Free helpful advice regarding pressing and record production. SAE for details to:  
**COUNTY RECORDING SERVICE**  
London Rd, Binfield, Bracknell Barks. Tel: Bracknell (0344) 54935  
DOLBY A, DOLBY B AND DBX NOISE REDUCTION

### STORM RECORDS BLACKPOOL

Record pressings, labels, sleeves, demos, any quantity. (8 + 4 Track Studios available).  
Tel: (0253) 23095/27357  
Music Publishing and Songwriters service S.A.E.:  
133 Park Road, Blackpool.  
FY1 4ET.

## EMPLOYMENT

**SALES REPRESENTATIVE DEMONSTRATOR FOR SOUTHERN ENGLAND REQUIRED BY LEADING FIRM OF ELECTRONIC ORGAN IMPORTERS AND DISTRIBUTORS**

All applicants should be versatile, presentable, and competent, with contacts in the retail organ trade and should live within the London or Birmingham area. Adequate salary, company car, commission incentive and expenses.

Apply to:  
**Woods (Pianos & Organs) Ltd., 15-17 Manchester Road, Bolton, Lancs. BL2 1EH. Tel: Bolton 27171/2**

**THE ROYAL EXCHANGE THEATRE COMPANY**  
Requires a Performance Sound Supervisor

Based at this exciting new theatre in the round in MANCHESTER. The company present many extra activities besides the normal theatrical productions, e.g. Jazz, Folk, Rock and Classical Music Concerts  
The candidates should have experience in recording, editing and dubbing of tape and also live P.A. engineering of various musical types. A theatrical or television background is essential for operating during live performances. Apply in writing stating experience to:  
John Newman, Production Manager, Royal Exchange Theatre, St. Annes Square, Manchester, M2 7DH

**WILSON JURE**  
Lighting for SCOTTISH tours - also spares and construction

16 Beechgrove Terrace,  
Aberdeen. Tel: (0224) 24256

## RECORDS

**Ellie Jay Records**

Low cost record and sleeve manufacturing service. Information from  
01-908 2735  
Any quantity 100-100,000  
We provide a fast, reliable high-quality service.

### RECORD & TAPE EXCHANGE

LP's and Tapes of every kind bought, sold and exchanged  
40 Notting Hill Gate, London W 11  
28 Pembroke Road, Notting Hill Gate, W 12  
911 Goldhawk Road, Shepherd's Bush, W 12  
TELEPHONE 01-749 2930

## RECORDING STUDIOS

**A.C. WALL**  
For a limited period only  
**8 TRACK £6**  
per hour  
Free setting-up time  
Ring Jan, Gravesend (0474) 66209

### STUDIO EQUIPMENT SERVICES

REPAIR AND SERVICE  
TAPE MACHINES  
MIXERS

We design and build studio mixers and amps to your specification

01-200 1229

**CHASE MUSICIANS**  
DIVISION OF CHASE CONSULTANTS LIMITED  
PRESENTLY INCORPORATES

### THE LONDON SYNTHESISER CENTRE

NEAR KING'S CROSS/EUSTON  
Due to expansion we now require to fill the following vacancies  
**A GENERAL MANAGER**

Who will be responsible for the day to day running of the whole business.

### SALES MANAGER

Who will be responsible for heading the London Synthesiser Centre's sales team, and will be fully conversant with synthesisers/keyboards.

### A SERVICE ENGINEER

Who will mainly be responsible for starting and maintaining an adequate workshop to service and repair musical instruments.

As future expansion is planned, the successful candidates will be expected to grow with the business. Preference will be given to mature and responsible candidates with experience in the music retail business. An excellent career and salary will be offered to the right candidates.

Apply in writing, stating experience, age and present salary, to  
**THE SECRETARY, CHASE CONSULTANTS LTD., 53 CHASE COURT GARDENS, ENFIELD, MIDD. EN2 8DJ.**

REHEARSAL

**ALLAN-GORDON STUDIOS**  
 WALTHAMSTOW  
 Special weekday 10-6 and Saturday evenings £4.50. Weekend 10-6 £7.50. Evenings 6.30-11.00 £6.00. FULLY EQUIPPED room available at approximately double the above rates.  
 01-520 3706/8642

**HOLLYWOOD STUDIOS**  
 Astounding introductory offer £1.50 per hour for luxury rehearsal room; fully sound proofed, good acoustics. Open 24 hours a day. Ground floor car park. Observation platform, refreshments.  
 38-40 Upper Clepton Road, London, E.5.  
 01-806 1121/1122

**CHRIS ECCLESHALL GUITARS**  
 Established Hand Builders of the finest acoustic and electrical guitars, mandolins and dulcimers  
 17c-18b, Station Parade, Uxbridge Road, Ealing Common, London W.5.  
 Tel: 01-992 4741 . 020-488 6860

CUSTOM BUILDING

**PHILLIP J. PETILLO MASTER LUTHIER**  
 Hand-made guitars, repairs. Custom acoustic guitar pick-ups, polish, fingerboard dressing and unique accessories. Dealer enquiries invited. Write for brochure. 1206 Herbert Avenue, Ocean, N.J., U.S.A. 07712. Phone (201) 631-6338

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

**D.I.Y. Cabinet Makers**  
 Give your cabs the professional finish with  
**HAMILTONS** CABINET FITTINGS  
 Get our fully illustrated catalogue now. Vynides, Fret Cloths, Handles, Feet, Adhesive, Paint, Catches, Castors, Edging, Trim, Connectors, Switches . . . The lot! Huge Stock - Fast Service Write or Ring  
**HAMILTONS OF TEESIDE**  
 26 Newport Road, Middlesborough. Cleveland. (0642) 247314.

You can buy International Musician & Recording World on subscription wherever you live in the world! IM is an international magazine distributed throughout the English speaking world (and in many places where English is not the main language) and if you are having any difficulty buying it from your local music store or magazine seller, you can order it to be delivered direct to your home.

UK Readers

You get the magazine almost as soon as it's off the press. Fill in the form below and it can be yours for 12 months. The UK price is £8.50 which includes all postal charges. Please send the coupon to the London address.

**LONDON OFFICE:** Cover House, 7a Bayham Street, London NW1 0EY.

USA Readers

We mail our USA edition direct from our NEW YORK office so you do not experience the usual delay you get when subscribing to "foreign" magazines. The USA rate for 12 issues is \$20 and please send the coupon direct to the New York Office.

**NEW YORK OFFICE:** Rockland County Office, 501 South Main St., Spring Valley, N.Y. 10977

Worldwide Readers

Your copy of IM can be air mailed directly to you or you can allow a little time for it to be delivered surface mail at less cost. The following rates are for 12 issues.

Overseas Surface Mail Rate: £11.00  
 Air Mail Rates S' America and S. Africa £20.00  
 Canada \$20  
 Europe: £17.00  
 Australia and Japan £24

**SUBSCRIBE!**

Name \_\_\_\_\_ City \_\_\_\_\_ Zip (Post code) \_\_\_\_\_  
 Address \_\_\_\_\_  
 State (Country) \_\_\_\_\_

Please send me the next 12 issues of International Musician starting with the . . . . . issue I enclose . . . . . (see above) to cover all costs. (Worldwide readers please fill in name and address to receive details).



**Don't grow old with your  
Binson, although it's still  
the best!**

Top musicians are now using the New Echorecs with 4, 6, 8 & 10 heads. We are looking for dealers/agents for the U.K. write to:

**BINSON**

S.p.A. Milano Via Padova, 39 2846527-2899319

*Slingerland*

SEE US AT **Rockex 78**  
TOP RANK SUITE, BIRMINGHAM  
OR SEND FOR FREE CATALOGUE  
AND U.K. PRICE LIST TO:

Dept. M3  
THE SUPREMO DRUM-WARE CO.,  
P.O. BOX 5, BRADFORD 3, W. YORKS.  
*Exclusive U.K. Sales Agents.*

**KEMPSTER & SON  
SWINDON**

SOLE AGENTS FOR

**MM**

MIXERS, POWER AMPS ETC

SOLE AGENCY FOR  MUSIC MAN

 AND **Premier**

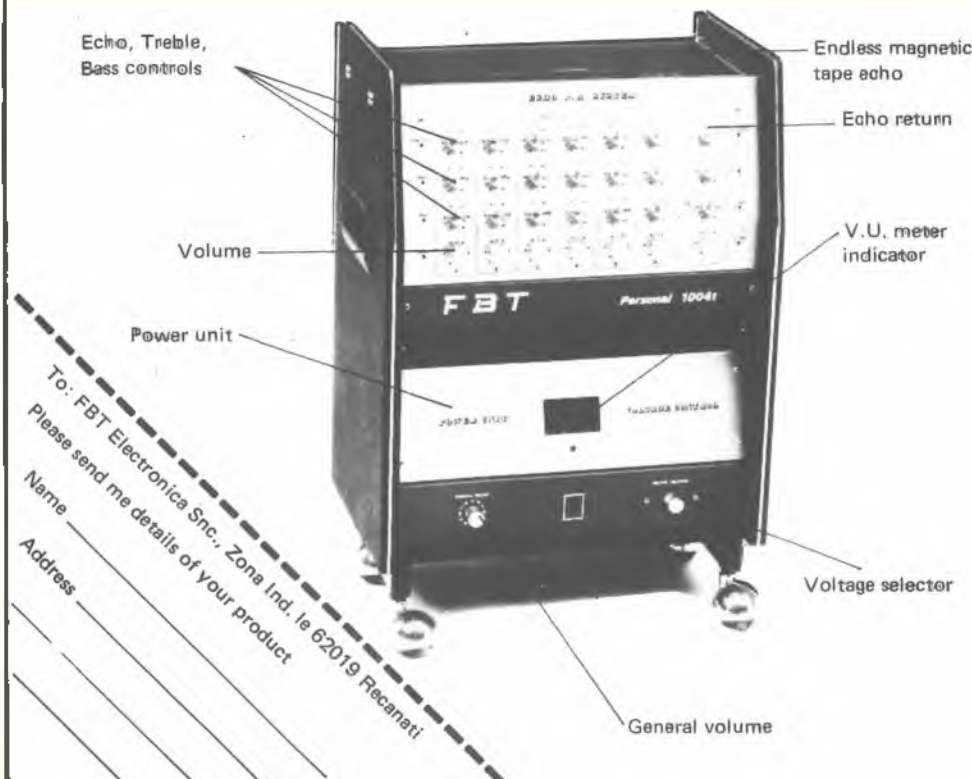
*No deposit terms available and part exchange*  
98 COMMERCIAL ROAD, SWINDON, WILTS  
TEL: SWINDON (0793) 35523/26375

STOP PRESS: Dates for your musicians diary  
(Watch out for further details!)  
Wednesday 8th February — Premier C/Inlc  
Monday 8th March — MM/PA:CE Demo/C/Inlc

**FBT ELECTRONICA**

62019 RECANATI (Italy) TEL: 98.14.80-98.18.26

THE LARGEST MANUFACTURERS OF AMPLIFIERS, AND P.A. SYSTEMS IN ITALY



**mod. PERSONAL 1004 T**

Compact amplifier for orchestra or group (P.A. System) complete with preamplifier-mixer, magnetic tape Echo, voltage control unit — Output power 100 W — Original PAPST motor — 6 input channels for microphone high impedance — Each channel with: Echo control, Volume, treble, bass controls; Echo recording Volume control — General Volume — Output Echo volume — Echo selector — Echo tone control — Magnetic heads: one recording, two reading, one erasing — 4 outputs for sound columns, each 8 Ohm impedance — Voltage control + 25% — Ac mains 110-240 V.

Dimensions: cm. 66X46X27 — Weight 31 Kg .

**mod. PERSONAL 2004 T**

Same technical characteristics but with 200 W. power unit.

To: FBT Electronica Snc., Zona Ind. le 62019 Recanati  
Please send me details of your product  
Name \_\_\_\_\_  
Address \_\_\_\_\_



# OUR ADVERTISERS JANUK/FEBUSA

# SEND THIS PAGE BACK

This page can be used for competition entry, Readers Survey, and our Readers Service. Use the bottom coupon to get more information about catalogues and price lists. Tick the advertiser you require information from, state which instrument you play, and return the coupon to Cover Publications Ltd, 7a Bayham Street, London NW1.

ABC Music . . . . .	168	Frankfurt Fair . . . . .	146	Picato . . . . .	146
Acoustic - Kingfisher . . . . .	111	Free 'N' Easy . . . . .	184-185	PKP . . . . .	87,111
Richard Allan . . . . .	193	Funkshun . . . . .	164	Pollard . . . . .	66
Allen & Heath . . . . .	135	Fylde . . . . .	155	Premier . . . . .	188-189
Andertons . . . . .	32	GEC . . . . .	127	Pro Audio . . . . .	16
Rod Argents Keyboards . . . . .	50	Tim Gentle . . . . .	174	Project Electronics . . . . .	72
Aria . . . . .	34	Goodmans . . . . .	159	Pulsar Light . . . . .	32
ARP . . . . .	81,84,85	Guild U.K. . . . .	112,129	Randall . . . . .	58
Azusa . . . . .	102	Guild U.S.A. . . . .	176,179	Rev. . . . .	131,139
Albert Balaam . . . . .	181	Bob Hall . . . . .	175	Rock City . . . . .	175
Barratts . . . . .	13	Halligan Heape Band Centre . . . . .	190	Rock Island . . . . .	181
Beyer Dynamic . . . . .	67	Hamer Guitars . . . . .	IV	Rola Celestion . . . . .	74
Binson . . . . .	200	Harker & Howarth . . . . .	180	Rons Music . . . . .	175
BKL . . . . .	IFC	Hayden Labs . . . . .	65	Rose Morris . . . . .	112,115,121,183
Bongo Bill . . . . .	181	Heat . . . . .	156	Rosetti . . . . .	51,140
Boosey & Hawkes . . . . .	106	Hermitage Organ Centre . . . . .	181	Rumbelows . . . . .	16
Boosey & Hawkes Electrosonic . . . . .	111,178	Hohner-Korg . . . . .	88-89,130	SAI . . . . .	174
British Music Strings . . . . .	29,170,171	Hornby Skewes . . . . .	86	John Savage . . . . .	132
Brodr Jorgensen . . . . .	33,95,96-97,99,110,167	James How . . . . .	112,128	Sharma . . . . .	155
Bulldog Cases . . . . .	192	ITA . . . . .	7	Shure . . . . .	126
Calrec . . . . .	72	Jimz . . . . .	174	Sibcor . . . . .	139
Calzone . . . . .	50	Julians . . . . .	108	Sigma Sound . . . . .	16
Camber . . . . .	155	Kejo Electronic Labs . . . . .	162	Socodi . . . . .	180
Carlsbro S/C . . . . .	6	Kemble Yamaha . . . . .	17,27,92-93,166,186	Soundpad . . . . .	117-120
Carlsbro S/E . . . . .	56-57,112,167	Kempster & Son . . . . .	200	Soundwave . . . . .	156
CBS Arbitrator . . . . .	116	Kennards . . . . .	139	Sound Workshop . . . . .	26
Chappell . . . . .	182	Keyboard Harmony . . . . .	174	Southern Music . . . . .	175
Pat Chapman . . . . .	167	Kicking Mule . . . . .	102	Spaceward . . . . .	190
Chase Musicians . . . . .	83-98,100	Kitchens . . . . .	191	Stentor . . . . .	123
Chingford . . . . .	3	Le Blond Drum Cases . . . . .	168	Len Stiles . . . . .	174
City Electronics . . . . .	80	Loughborough Music Centre . . . . .	181	Strings 'N' Things . . . . .	82,138
Cleveland . . . . .	180	Luton Music . . . . .	156	Summerfield . . . . .	9
J.T. Coppock . . . . .	52	Macaris . . . . .	30,40,158	Sundown . . . . .	50
Custom Sound . . . . .	138	MacInnes . . . . .	157	Sunn . . . . .	142
D'Addario . . . . .	107	Mega . . . . .	202	Supersounds . . . . .	24-25
Trevor Daniels . . . . .	V	Mighty Mite . . . . .	148,149	Suprema Drum Co . . . . .	200
Dimarzio . . . . .	143,154,167	Minns . . . . .	167	Syncordion . . . . .	64
D'Merle . . . . .	159	MM . . . . .	53	Tangent . . . . .	162
Electronic Manufacturing . . . . .	80,182	Modern Music . . . . .	180	Teledyne - Acoustic Research . . . . .	75
Electro-Voice . . . . .	35	Music Box . . . . .	175	Trident . . . . .	192
Eika Orla . . . . .	94,112,134	Music Ground . . . . .	190	WEM . . . . .	61,149
Elvins . . . . .	193	Music Man . . . . .	IBC	Whomes . . . . .	180
ESS . . . . .	181	MXR . . . . .	19	J.G. Windows . . . . .	174
FAL . . . . .	123	Nashville . . . . .	127	Wing . . . . .	10
Fane Acoustic . . . . .	127	Norlin . . . . .	169	WLM . . . . .	163
FBT . . . . .	200	Otari . . . . .	141	Woodroffes . . . . .	VII-VIII,103-104
Fiddlers Green . . . . .	175	Pack Leader . . . . .	114	Woods . . . . .	11
Fletcher Coppock & Newman . . . . .	168, OBC	Peavey U.K. . . . .	78	Zildjian . . . . .	79
		Peavey U.S.A. . . . .	150-151		

**CAT COMPETITION ENTRY FORM**

(A) What group was Patrick Moraz in before he joined Yes?  
 (B) What is the title of Rick Wakeman's latest solo album?  
 (C) Which famous keyboard player is currently playing with Jeff Beck?  
 (D) Who was the keyboard player in Aphrodites Child?

I would like to own a CAT synthesizer because . . . . .  
 . . . . .  
 . . . . . (no more than 30 words)

Name . . . . .  
 Address . . . . .

**GUILD COMPETITION ENTRY FORM**

(A) What acoustic guitarist recently released an album called "Visionary"  
 (B) Give the titles of two Steve Howe acoustic guitar instrumentals.  
 (C) Who wrote and originally recorded "Classical Gas"?  
 (D) Which one of Flatt and Scruggs plays acoustic guitar?

I would like to win the Guild D-25 because . . . . .  
 . . . . .  
 . . . . . (no more than 30 words)

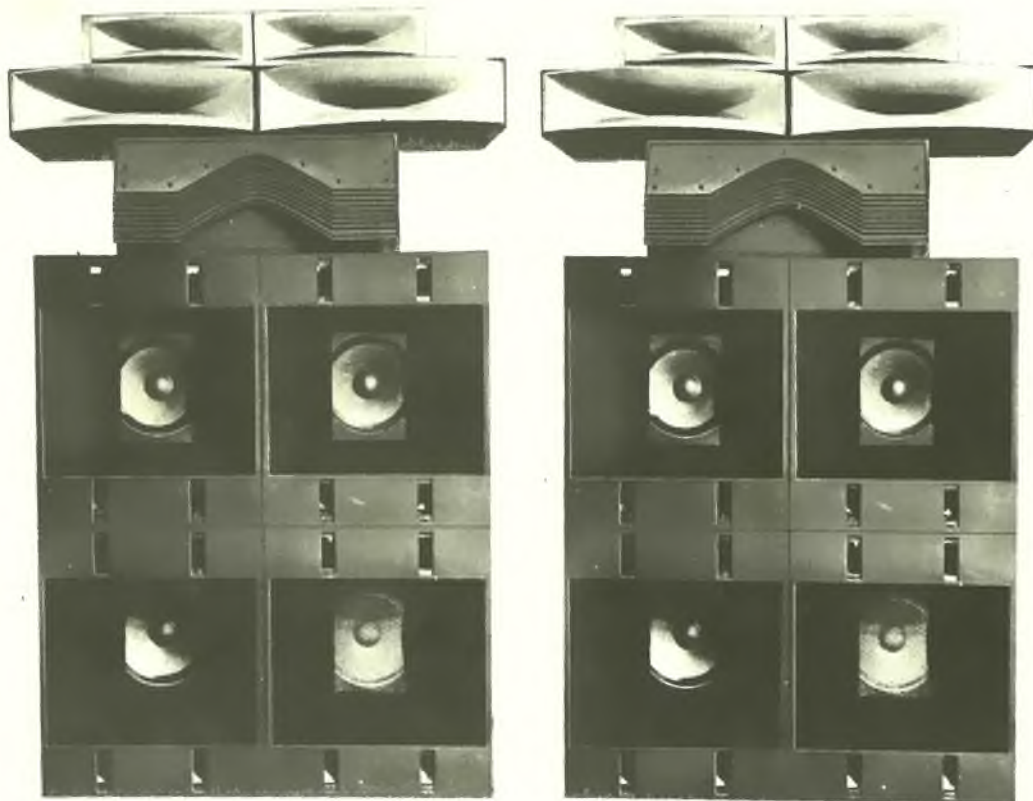
Name . . . . .  
 Address . . . . .

**READERS SERVICE FORM**

Name . . . . . Address . . . . .



The Brand New Product You've Known for Years



**We're called MEGA and we're another of those well kept secrets in the music business – you see we've been making the heavy duty speaker cabinets for professional rock and roll users for years – but we didn't put our name on them.**

**Now we've decided to come out in the open, stand up and be heard.**

**MEGA has designed a superb new range of complete speaker systems and brings them to you through our appointed U.K. dealers. Each MEGA dealer is a carefully selected and experienced p.a. specialist. Call in on any one of them for a demo, full technical information and a few dozen good reasons why you should choose MEGA.**

**MEGA professional p.a. dealers in the U.K. and Ireland are:**

### **Birmingham**

WOODROFFES  
5/8a DALE END  
BIRMINGHAM B4 7LN  
TEL: 021 236 4992

### **Bristol**

BIGGLES MUSIC  
85 WEST STREET  
OLD MARKET  
BRISTOL  
TEL: 0272 552147

### **Dublin**

MUSIC CIRCLE LTD  
82 DAME STREET  
1/3 PARLIAMENT STREET  
DUBLIN  
TEL: 0001 774959

### **London**

SOUTH SIDE MUSIC  
277 PUTNEY BRIDGE ROAD  
LONDON SW15  
TEL: 01 789 6890

### **Manchester**

AI MUSIC CENTRE  
88 OXFORD STREET  
MANCHESTER 1  
TEL: 061 236 0340

### **Newcastle**

ROCK CITY MUSIC  
48 CLOTHMARKET  
NEWCASTLE UPON TYNE  
TEL: 0632 24175



FRANKFURT INTERNATIONAL SPRING FAIR — February 26 through March 2  
Stop by to see us . . . Hall 5, Booth G50736

**MUSIC MAN, Inc.** ■ P.O. BOX 4589 ■ ANAHEIM, CALIFORNIA 92803 U.S.A. ■ TELEX: 692-397

*UK and Eire Distributors*  
Music Man Division  
STRINGS & THINGS Ltd 20 Chartwell Rd  
Churchill Industrial Estate,  
Lancing, W. Sussex BN15 8TU

Everybody's talking about one of the world's finest guitars

# Hagstrom

Electric Guitars/Bass Guitars/Semi-Acoustic Guitars



For full details of the entire Hagstrom range including the Swede, Swede Bass, Scandi, Scanbass, Viking, Jimmy and Patch 2000 write to FCN for a free colour catalogue or contact your local dealer.

**FLETCHER COPPOCK & NEWMAN LTD**  
MORLEY ROAD, TONBRIDGE, KENT TN9 1RA.  
Telephone: 0732 365271

**FCN**

To: Fletcher, Coppock & Newman, Morley Road, Tonbridge, Kent.

Please send me a catalogue of full range of Hagstrom Guitars.

Name \_\_\_\_\_

Address \_\_\_\_\_