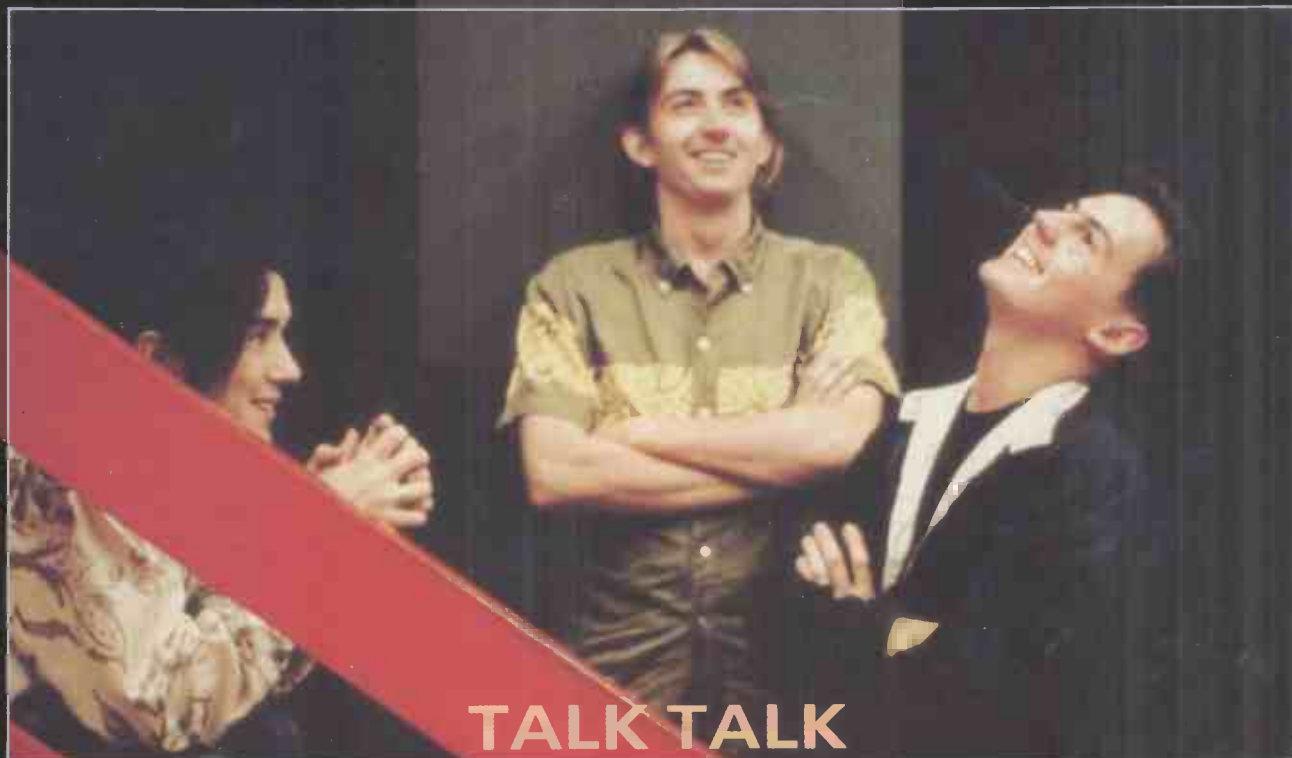


MARCH 1986
£1.20

EMM

ELECTRONICS & MUSIC MAKER
THE MUSIC TECHNOLOGY MAGAZINE



TALK TALK

Music Is What You Make It

SHOW STOPPERS

Exclusive Reports from Frankfurt and Anaheim

BUYERS' GUIDES

To Samplers and Personal Multitrackers

PROPHET VS

Sequential's First Digital Synth Revealed

STEVE REICH

The Modern Music System

FREE COMPETITION



Write a Feature – Win a DX100

DRUM THEATRE



Hi-tech Keyboards meet Ethnic Roots

When an innovative new technology produces great sound and still passes Sequential's tough requirements for quality and ease-of-use, what's the result? A New Prophet.



Introducing the radically different Prophet VS, an eight voice synthesizer that produces a wave of sound so big we almost named it Tsunami.

It's a standout performance instrument based on a new digital technology called Vector Synthesis. It's easy to program, it's made in America by Sequential, and it offers the full range of features and commitment to quality that is expected in a Prophet.

What is Vector Synthesis?

Briefly, complex sound waveforms are stored digitally (with a minimum of 128 waveforms—including white noise—always available). A sophisticated algorithm is employed to dynamically mix up to four of these stored waveforms together to create sounds. Both subtle, and powerful changes in timbre are easily accomplished—even during a live performance—using the joystick.

New waveforms can also be easily constructed and modified by the user via the joystick. These features are unique to the VS.

Made for Performance!

The Prophet VS offers more immediate control over changes in timbre than any synth ever designed. The ability to control and modulate stereo panning, voice oscillator mixing, and stereo chorusing in real-time, as well as instant access to 200 programs via ROM and RAM cartridges are just a few of the features making the Prophet VS a necessary instrument for performing artists. Additional features include a velocity and pressure sensitive 5-octave keyboard with programmable split, and the most versatile arpeggiator available to date—offering new options like polyphonic voicing, rests, and layering.

MIDI? The PROPHET VS MIDI implementation is matched only by the PROPHET 2000.



SEQUENTIAL

For further information on the PROPHET VS and other fine instruments from the SEQUENTIAL range, please send a £2 postal order made payable to SEQUENTIAL INC to: Sequential (Europe), PO Box 16, 3640 AA Mijdrecht, The Netherlands.

All the very latest products always in stock. All Branches.

PF 70/80. Elec Piano's, Fantastic New Range of FM Pianos with identical specification except extra keys in the PF80, many new sounds, MIDI, 10 preset voices and 16 programmable functions, tremelo, chorus, and much much more.

NEW PF 70 £899 rrp*
NEW PF 80 £999 rrp*

REV 7 NEW LOW PRICE

This incredible studio quality reverb unit **NOW** available at the low price of **£949**

and don't forget we stock:

- TX 816 £3399
- TX 7 £479
- QX 1 £1999
- QX 7 £299
- RX 11 £675
- RX 15 £429
- DX5 £2299
- DX7 £1249
- DX21 £699 rrp*
- KX 88 £1139
- KX 5 £199
- CP 70 B ... £1999

TR505 RHYTHM COMPOSER

With 16 digital voice sounds - Bass drum - Snare drum Low tom - Med tom - High tom - Timbale - Hand clap/rim shot - Closed/open high hats - Low/high conga - Low/high cow bell - Crash/ride cymbal - Liquid crystal display Tape save/load - Store interface - 48 preset patterns 48 programmable patterns - 6 tracks (1 to 6 tracks up to 423 measures) and stereo outputs make this a truly magnificent buy at

£225 rrp* NEW

JUNO 106

61 keys, 6 voice, 128 patch memory, programmable Polyphonic Synth. This No. 1 world best selling synth comes complete with MIDI and cassette interface facilities; this is without doubt the best buy around at

NEW LOW PRICE

£599
Inc. FREE STAND

NEW PEDALS

Boss DC 2 Dimension C **£130** Boss HF 2 Hi Band Flanger **£89**

NEW ALPHA JUNO'S

ALPHA JUNO 1

49 keys, 6 voice polyphonic fully programable synth with 64 preset and 64 programable sounds. Data can be saved/loaded by cassette interface expression, dynamics, and aftertouch can be controlled and produced by an expression pedal.

£575 rrp*

ALPHA JUNO 2

61 keys, 6 voice polyphonic fully programable synth with dynamic and aftertouch. 64 preset and 64 programable and 64 memory cartridge sounds. Sound data can be saved/loaded by memory cartridge (M16C)

£799 rrp*

Both of these superb new keyboards have chord memory, a new type of Bender, liquid crystal display, MIDI and the dial to make the editing quicker; and more accurate, an envelope with 8 parameters and a newly designed LSI add up to fantastic packages.

MTIX NEW

4 Track Recorder. Full 4 track recording plus DBX, zero stop, tape sync. plus many user benefits and only

£449 rrp*

NEW

RX 21. Digital drum machine. **£249 rrp***
RX21L. Digital drum's (Latin Perc) **£249 rrp***

SRV 2000 DIGITAL REVERB

Whatever kind of room you desire the SRV 2000 provides it. 15, preset and a total of 64 different settings can be stored and recalled at the push of a button. Recalled parameters can be easily modified, also there are five remote jacks for remote control through foot switches and of course its MIDI compatible. Specification includes:

- 48K Bytes
- Frequency Response 10 HZ to 50 KHZ ± 1 dB Direct
30 HZ to 10 KHZ ± 25 dB Reverb
- Dynamic Range 105 dB (Direct) 90 dB (Reverb)
- Pre delay time 0 - 160 ms (Reverb mode)
0 - 120 ms (None linear mode)
- adjustable in 1 ms steps
- Reverb time 0.1 to 99s (Reverb mode)
0.9 to 9.9s (None linear mode)
- adjustable in 0.5 steps from - 0.9 to 9.9s and in steps from 10 to 99s

£1149

UNBEATABLE PERFORMANCE

FANTASTIC NEWS

SPX 90. Digital multi effects processor, you name it and this little baby does it all, reverb, delay, pitch change, compression, auto party flange, phase, freeze and lots more. **AND THE GOOD NEWS IS - IT'S ONLY £599 rrp***

DX 27. FM-Synth, 61 full size keys "an absolute winner" MIDI and just look at the price. **£499 NEW**

DX 100. FM Synth, 49 Mini Keys with an incredible specification for the price, and of course MIDI. **£349 rrp***

NEW



DIGITAL DRUM SYSTEM

Consists of:
1 PDR 30 Digital Drum Module
1 PD10 Bass Drum Pad
5 PD20 Snare & Tom Pads
All leads
Specification includes:
6 Drum Voices (Bass snare and four Toms)
Up to 8 preset sounds per voice
4 different PCM digital preset sounds provided for each voice
MIDI compatible and above all "very playable"

£1499

Britain's Largest Musical Retailer
Come and see us We guarantee the best deal.

*PRICES QUOTED ARE MANUFACTURERS RECOMMENDED RETAIL AND ARE FOR YOUR COMPARISON.



Carlsbro
SOUND CENTRES

- NOTTINGHAM**
11-13 Hockley
Tel: 581888
- SHEFFIELD**
720 City Road
Tel: 640000
- NORWICH**
2 Sovereign Way
Anglia Square
Tel: 666891
- LEICESTER**
22 Humberstone Rd
Tel: 24183
- MANSFIELD**
182-184
Chesterfield Rd North
Tel: 651633

OPENING TIMES
Mon-Fri 9.30am-6.00pm
Saturday 9.30am-5.30pm

CONTENTS

E&MM March 1986 Volume 6 Number 1

Comment

4

The future of the synthesiser: experimenter's toy or street-cred home organ?

Newsdesk

8

The winners of the Quiz of the Decade are named, plus all the music technology news that's fit to print, and isn't covered by our show reports.

Communiqué

10

Tangerine Dream head the list of topics aired in the E&MM readers' forum. If you have an opinion to add to any subject, this is the place to head for.

Five Years Ago

16

...In March 1981, E&MM's publishers launched this magazine onto an unsuspecting musical public. Dan Goldstein looks back at the issue that started it all.

Win a DX100

41

Another exclusive free-to-enter competition. Write a feature on your favourite E&MM-type subject, and you could become a regular freelance contributor – and win a brand new Yamaha DX100 polysynth as part of the deal.

Frankfurt Report

46

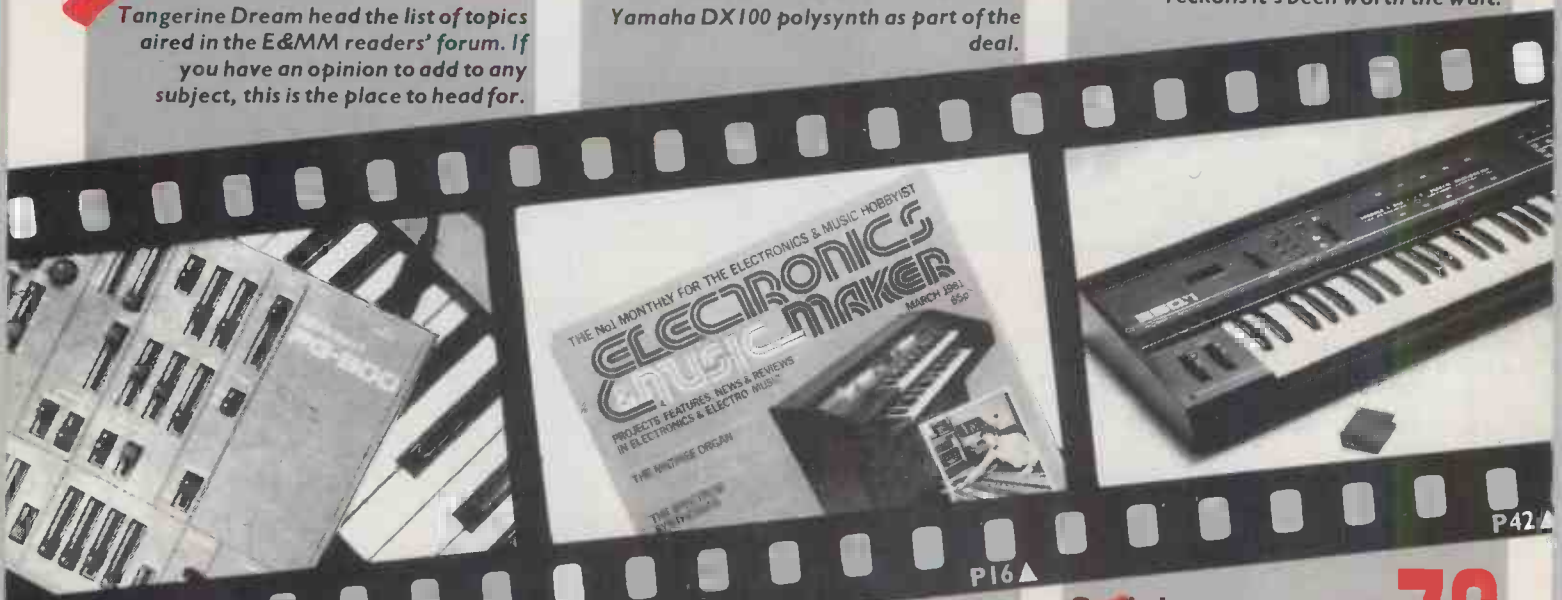
...while Dan Goldstein, sore-foot from Germany, has the details on the new European and Japanese gear that'll soon be flooding the UK's music stores. Prepare for some surprises.

Prophet VS

32

An exclusive preview of Sequential's first-ever digital synth: Paul Wiffen reckons it's been worth the wait.

Appraisal



Interface

14

Return of a regular Question and Answer session. If you've got a problem, E&MM will do its best to solve it for you.

Winter NAMM Report

42

Paul Wiffen, hotfoot from California, reports on the machines that made headlines at the US music industry's winter shindig...

Steinberg Scorewriter

72

Simon Trask looks at how the Germans get computers to print out staves, notes and time signatures, and is suitably impressed.

Linn Sequencer

74

The sequencing half of the Linn 9000 gets a once-over from Paul Wiffen, who concludes it's far from being a replacement for the tape recorder.

CZ Editing Software

88

It's taken two British companies – XRI and Joreth – to produce the first computer-based editing packages for the Casio CZ range. Simon Trask finds out if they make programming life easier.

Dynacord Percuter S

92

Digital drums the Dynacord way. Or as Nigel Lord would put it, a better-than-average electronic drum kit at a higher-than-average price. Is the Percuter worth the extra?

Steve Reich

63

The quiet man of systems music tells Simon Trask why his work is so often misunderstood – and why tomorrow's 'serious music' won't be possible without computers.

OutTakes

78

What have a Sting concert, a Steve Jolliffe album and a David Sylvian video all got in common? They're all reviewed in this month's OutTakes, that's what.

Up and Running: Drum Theatre

82

Tim Goodyer looks past the bright colours of Drum Theatre to find high technology and ethnic tradition working hand-in-hand, and selling records, too. The band themselves explain.

Yamaha SPX90

38

Yamaha's rack effects box to end all rack effects boxes. Tim Goodyer finds out why you might want two.

Cassette Multitracking Guide

96

A complete idiot's guide to buying a four-track cassette recorder, with hints on what features to look for, and a rundown of some of the most popular machines.

Technology

Sampler Checklist

68

E&MM's unique buyer's guide spreads its wings, with a round-up of what's around in the world of sound-sampling.



P63▲



P82▲



P96▲

MUSIC

Talk Talk

18

As the band reach their greatest level of British success and release their third album, Talk Talk's Mark Hollis and Tim Friese-Greene discuss the curse of the synthesiser and the blessing of the piano with Tim Goodyer.

Lexicon PCM70

23

Paul White gets to grips with the first digital reverb to be fully touch-sensitive over MIDI, and finds it throws a whole load of additional effects into the bargain.

Boss RSD 10

34

Paul White again, with details of a pitch-following sampling delay for only £200. His conclusion? Buy it!

Patchwork

94

The readers' synth sound page, with patches for SCI Pro One, Yamaha DX7 and Casio CZ101 instruments, plus reviews of a new DX RAM pack and another collection of sounds for sampling.

BACK TO THE FUTURE

What was it that made you first think of using modern technology to make music? Was it the sight of other musicians using synthesisers? Was it the fact that hi-tech instruments seemed easier to play than most of the traditional variety? Or was it the promise of a completely new area of sound, an area in which you could create your own, previously unheard and completely individual sound textures, just by turning a few dials and flicking a few switches?

It's impossible to speak for everybody, but I'd lay a sizeable bet that most E&MM readers took up hi-tech instruments for the last reason, that of unrivalled sound-creation possibilities. You only have to look at the way synthesisers were (still are) advertised, with phrases like 'new horizons of sound limited only by your own imagination', to realise that modern technology's biggest musical attraction is the sheer potential it offers the would-be sound-creator.

Or at least, that certainly was the case a year or two ago. But in March 1986, the month *Electronics & Music Maker* celebrates its fifth birthday as Britain's leading music technology magazine, I'm not so sure it still is. I am sure that the fascination for new sounds still exists among today's young aspiring technology users, but what's changed is the degree to which that fascination can be turned into reality by the individual player.

Let's look at how things have changed in the half-decade E&MM has been around. The average synth of five years ago was an awkward, unwieldy affair: if it hadn't had a keyboard stuck on the front of it, it wouldn't have looked like a musical instrument at all. And half the time, the people using it weren't really interested in music; they were experimenters, laboratory boffins just as keen to study waveforms on oscilloscopes as they were to enrich the world's vocabulary of machine-generated sound.

Not surprising, then, that synthesisers quickly gained a reputation for being workshop instruments, new toys for engineers – rather than musicians – to dabble with.

Then, somewhere along the line, things began to change. The technology got cheaper, so more people outside research labs and megastar studios could get involved with synthesis than ever before. And the machines themselves got more 'musical': their control panels became more logically laid out, their keyboards got more responsive, and then, to cap it all, someone had the bright idea of giving them programmable memory locations, so that if your twiddling and fiddling did produce something worthwhile, you could store it away for safe keeping.

There was a spirit of adventure surrounding music technology in those days, yet I can't help feeling it's a spirit that's now dying a slow, rather painful death. Thanks to some of the music industry's less welcome innovations (digital parameter access, trimming of parameter numbers, 'soft-touch' buttons – cost-cutting exercises all), the average synth of 1986 does little to encourage adventurous programming.

Regular observers of E&MM's artist interviews will probably have noted that, while some players have mourned the passing of yesterday's attitudes and stuck with yesterday's gear as a result, a greater number have recently taken the opposite stance: suddenly, they just can't see why they should make the effort to program new sounds – it's just too much hassle.

In the wake of this programming apathy, tapes, disks, cartridges and chips full of new, ready-programmed sounds have formed a miniature boom industry, while the instruments they're designed for become increasingly inaccessible and laden with larger and larger numbers of preset voices.

Inevitably, what this leads to is a new generation of records with the same synth sounds on them, and a new generation of synth players who see their instruments merely as preset instruments, street-cred equivalents of the much-maligned home organ. And the deeper that feeling sets in, the more likely it is that young people will shy away from keyboards and take up drumming or guitar playing instead; they may, heaven forbid, decide it's not worth playing music after all.

In his appraisal of two CZ editing packages elsewhere this issue, Simon Trask makes much the same sort of point. Yet even in the area of software, I'm not so sure technology is really being applied in the most easily accessible way. Sure, there's no denying it's handy to see an instrument's variable parameters, graphically displayed, in glorious Technicolor, on a telly screen. But if there's a computer between that display and the instrument it represents, then surely such a system only demolishes one barrier by setting up another one?

Struggling down the aisles of this year's Frankfurt Musikmesse, my arms overloaded with information on the latest gear (see report elsewhere this issue), I was greeted with some more sad news. The Akai AX60, a polysynth that returned to analogue control for all its variable parameters, has been replaced by a new model before it's even been made available. Needless to say, the new model has digital parameter access, so that although it offers more facilities for the same money, it presents them in a much less accessible way. And in the field of new sampling technology, I was presented with the (not unexpected) news that the likes of Sequential and Ensoniq are selling factory voicing disks as fast as they can make them, as users give up the idea of DIY sampling and use someone else's sounds instead.

Of the major hi-tech music companies exhibiting at Frankfurt, only Roland were persevering with add-on analogue programming modules; they may cost extra, but at least Roland synth owners have the option to program their instruments in what is still the swiftest, most logical and most versatile way.

Maybe at Frankfurt '87, a few more designers will realise that in order to leap forward into the future, music technology may have to take a couple of steps back. ■Dg

Editor Dan Goldstein Production Editor Trish McGrath Reviews Editor Simon Trask Music Editor Tim Goodyer Technical Editor Paul White Consulting Editor David Ellis
 Art Editor Stuart Catterson Deputy Art Editor Eddie Allen Art Assistants Sam Masters, Lynn Cooper Photography Matthew Vosburgh, Tim Goodyer
 Illustrators Len Huxter, Clive Goodyer Consultants (Music) Annabel Scott, Patrick Moraz, Warren Cann, Ian Boddy, Paul Wiffen Consultants (Technology) Nigel Lord,
 Ken McAlpine, Jay Chapman, Steve Howell, Jim Grant, Paul Williams Advertisement Manager Tony Halliday Advertisement Production Manager Shaun Barrett
 Advertisement Production Assistant Claire Wiles Accounts Manager Lester Johannes Accounts Secretary Sonja Betts Mail Order/Subscriptions Cheryl May
 Director Dennis Hill Publisher Terry Day

Electronics & Music Maker is published by Music Maker Publications, Alexander House, 1 Milton Road, Cambridge CB4 1UY. ☎ (0223) 313722. Typeset by Goodfellow & Egan, Cambridge. Printed by Thomas Reed Printers, Sunderland. Distributed by Magnum Distribution, London. All material is subject to worldwide copyright protection, and reproduction or imitation in whole or part is expressly forbidden. All reasonable care is taken to ensure accuracy in the preparation of the magazine but Music Maker Publications cannot be legally responsible for its contents. The Publishers cannot assume responsibility for the return of unsolicited manuscripts, photographs, artwork, or projects. Permission to reproduce printed circuit board layouts or to market kits commercially must be sought from the Publisher.

Subscription UK & Eire £15.50, Europe & Overseas (surface) £16.20, Europe (airmail) £23.50, Overseas (airmail) £37.50. Binders £3.95 (inc. postage).

© Copyright 1986 Music Maker Publications Limited

GIG SOUNDS

CATFORD
22 Rushey Green
London SE6
Telephone
01-690 8621
01-690 8622
01-690 1848

GIG SOUNDS

STREATHAM
86-88 Mitcham Lane
London SW16
01-769 6496
01-769 5681

GIGSOUNDS RECORDING SPECIALISTS

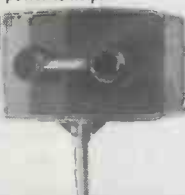
From 16 to 2 track, we have the answer. See the latest gear, discover the latest techniques at London's recording super dealer.

NEW - The latest design, from the people who brought multitrack in reach of the masses. Fostex now add a space age style four track cassette studio, the Fostex 260. **£ CHECK IT OUT NOW!**

GIGSOUNDS - PA SPECIALIST

When it comes to being heard, we know the problems. We have the top names in PA with us, and the best advice. From a 100W vocal PA to 1000W system, we have the power to help.

BOSI 802 compact cabinet speakers. London exclusive.....	£Phone
JBL 4695 600W bass bin each.....	£695
TOA RS20 200W cabs pair.....	£299
MARTIN systems London exclusive	
STUDIOMASTER MOSLI Series from.....	£535
HH V500 Mastel power amp.....	£585
HIT 300.....	£399
YAMAHA P series from.....	£435
YAMAHA EXX300 12 channel powered mixer (150W).....	£Phone



GIGSOUNDS MIDI SPECIALIST



With any instrument the sound comes first. Whether you don't know what MIDI is, or you want to talk Systems exclusive information - Gigsounds is the MIDI specialist.

NEW - DX100. Both a cost effective expander and an excellent small keyboard, it's 192 sounds, which are velocity sensitive over MIDI, provide a landmark in FM synthesis £345.

The DX27, also in stock, is the full sized keyboard version.

The DX21 will remain for a long time the market landmark. Powerful dual and split modes make this synth unbelievable, especially at our price!

QUARK MIDI routing box, 999 9 In 9 out. £299.

YAMAHA MASTER CENTRE - RENTAL SCHEME

As a Yamaha Master Centre, Gigsounds offer a unique hire before you buy service. You can try out the equipment in your own environment, whilst you decide to buy it. If for some reason you decide not to buy, all you pay is the hire charge. If you decide to buy at the end of the hire, we allow the full hire charge against the purchase price. Only with this scheme can you get the full protection of knowing what you're buying. (Hire is subject to our usual hire conditions).

Prices per day. Weekly rate is X4.

DX100.....	£10	QX7.....	£10
DX27.....	£12	QX21.....	£9
DX21.....	£14	Rev 7.....	£18
DX5.....	£58	SPX90.....	£18
PF80.....	£20	MT1X.....	£12
RX21/1.....	£8	CX5 'MIDI IN	
RX15.....	£11	voicing.....	£6
QX1.....	£39	TX7.....	£12
		TX816.....	£80
		KX88.....	£20

BANG IN TIME! News of two new rhythm composers. From Roland comes the TR505, 16 digital voices comprising of drums and latin, 96 patterns, 6 tracks, dynamic over MIDI, etc. An incredible £225.

From Casio - drum/sampler has 12 digital drum voices and 4 of your own samples. Expected any moment at £345.

TOUCH SENSITIVE or a temperamental piano player?

For full expression in playing, touch sensitivity is a must, but the price needn't put you off!

MOTHERS COMING - New from Roland a 61 note mother keyboard.

Touch sensitive, split, performance wheels, memories, etc. £589

AKAI AX80 with visual parameter readout and some fabulous sounds. £699.

Korg DW8000. Using real sound waveforms to create an impressive sound array and a built in delay line to add the finishing touches. This keyboard is everything a DX7 can never be.

The ideal partner in fact. £ Phone.

NEW - Renowned for the string sound, the Roland Juno 2, is no exception to the tradition. An impressive sound from all of the 192 sounds, at an unbelievable price. Only £799.

S - S - S - SAMPLING...

Full range of Mirage library discs. Now only £15 each.

SELF FORMATTING DISC FOR MIRAGE £15

Blank 3.5" discs £3.25 each

MICROVOX sampler for Commodore, with VES. From £229

LOOK NO HANDS! Sequencers don't have to be sterile sounding, ergonomic catastrophes. Find out how at Gigsounds.

Yamaha QX7 Only £349. Casio SZ1 £199

STOP PRESS - NEW C25 and Steinberger Software IN STOCK. (MIDI in, for CX5, 16 track recorder for Commodore etc).

SIXTEEN TRACK BECOMES A REALITY

at Gigsounds. With the money it takes to buy a sixteen track studio, you need to be sure to get it right. Based on the well established Fostex B16, we have supplied many sixteen track packages.

With FIVE major mixer manufacturers to choose from, we can supply the right package for YOU. From the loom up, we can supply all your sixteen track requirements - from budget to finance. £ Packages start from £4,800.

NEW - 2 second delay line/Sampler with Trigger Audio Pitch follow. £ less than £200.

£200 OFF the amazing Korg SDD2000. Full function delay line full of features - 4 second sampling, 65 memories, MIDI. £ Only £599.

IF IT'S THE EFFECT YOUR AFTER - come in and clique out the latest in micro rack gear.

The incredible value Accessit range now includes an AURAL EXCITER (HP sauce for ears) for a mouth watering £79. It's what your mix's have been missing for years. Bring in your multitrack tape and hear the difference.

The BOSS is back in the studio. An excellent range of micro rack processors. No compromise on the sound - although the price and dimensions are small. From £115.

ACOUSTIC CONSTRUCTION from Yamaha comes in the form of the fantastic Rev 7. An incredibly smooth, powerful sound, that even makes a paper and comb sound good! Yours for £ Mere money.

STUDIO SUPPLIES... AMPEX tape, cassettes, editing supplies, etc. £ In stock at special prices. Reel to reel look cassettes from £1.80.

ROLAND SBX80 MIDI and SMPTE centre. Synchronise tape and MIDI instruments with added bonuses. £ Call for details.

GIGSOUNDS MUSIC SPECIALISTS THE GIGSOUNDS FIVE STAR SERVICE

- ★ Extensive product range
- ★ Specialist advice
- ★ Competitive Prices
- ★ On site repair & modification
- ★ Hire facility

JOIN THE CLUB...

Any of our customers can join the Gigsounds Club. You get

1. Special deals & prices.
2. Half price admission to our seminars (starting March).
3. Monthly newsletter covering the music business.
4. The Gigsounds Specialist backup Phone Peter on 01-690 8621 for details

GIGSOUNDS - SUPER DEALS

TAMTEC MADRAM MULTITAP DELAY, gives some incredible effects..... £435
Tascam DX4D 4 channel DBX noise reduction..... £Phone
Tannoy Mercury Speakers £135
Teac Amplifiers. A515 35W per channel ... £99
Teac PE20 4 channel 3 band parametric EQ £69
MORE SUPER DEALS AVAILABLE £Phone

GIGSOUNDS MUSIC SPECIALISTS

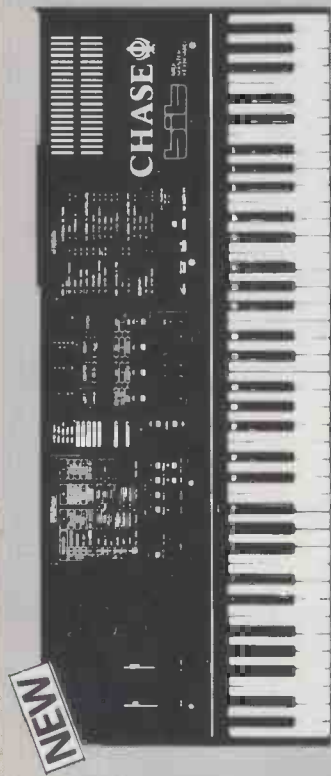


YOUR MOVE



FRANKFURT REVIEW

CHASE STOLE THE SHOW AND HERE'S WHY



CHASE BIT MASTERKEYBOARD

CHASE BIT MASTERKEYBOARD - PLUS?

WHY MASTERKEYBOARD PLUS?

It's a Masterkeyboard, it's a Sequencer, it's a MIDI genius...

Switch on your synths, kick in your expanders, hit GO on your drum machines. Now forget everything else, and just PLAY. No need to worry about program setting, remember patch numbers, MIDI channels and the rest of the works - the BIT MASTERKEYBOARD does all that for you and much much more.

It's totally future orientated, with all the MIDI features you ever wanted (and probably a few you hadn't even dreamt of). MIDI 2 is what we call it, with the usual MIDI-IN connector to "drive" the MASTERKEYBOARD from a portable/remote keyboard, plus two MIDI-OUT connectors. You can tell the BIT MASTERKEYBOARD to "filter out" unwanted and/or incorrect MIDI data, and then assign the "cleaned up act" to one of the MIDI-OUTS.

The weighted keyboard is just that - a "nice touch" to give you six octaves of touch dynamic, human engineered playing pleasure.

Now add AFTER TOUCH, not the usual stuff but After Touch the BIT way - with sensitivity adjustable in six steps. And don't worry if your expander or synths don't "speak after touch". The CHASE BIT MASTERKEYBOARD PLUS lets you re-route After Touch data to control Modulation and/or Pitch Bend instead.

Next, let's take a look at keyboard Splits: you get three Split Zones which can be programmed and transposed individually; handle Key Velocity; and control their own set of MIDI Channels. The Zones can even be programmed to overlap by any number of notes.

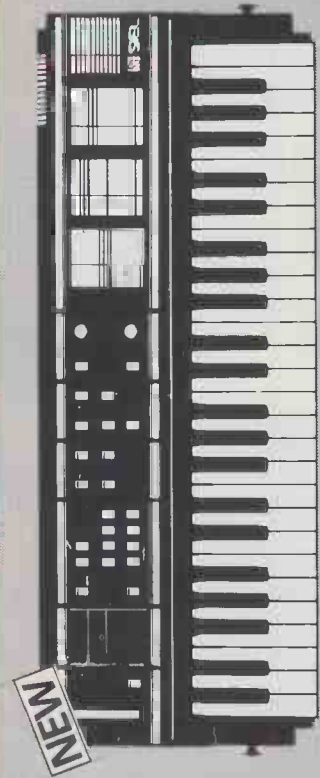
Did we say "Sequencer"? It's a musical genius right there alongside all those state-of-the-art keyboard functions, capable of storing up to 4,000 notes (Real-Time or Single Step) 64 patches on four separate tracks. You can mix and merge tracks, auto-correct the timing, insert and delete anything from a single note to a symphony, copy sections and assemble Sequences into Songs. Interfacing with the MASTERKEYBOARD PLUS lets you choose between MIDI-Clock, Sync-Clock and Sync-to-tape.

Plus, Plus, Plus...

Just a few of the impressive list of features at an impressively low price.

CASH PRICE	£499
DEPOSIT	£50
10x WEEKLY PAYMENTS	£5.87
TOTAL CREDIT PRICE	£603.12

INTRODUCTORY £499 OFFER



SIEL DK70 MIDI SYNTHESIZER

SIEL DK70 PROGRAMMABLE MIDI SYNTH

The DK70 is the latest addition to Siel's fantastic new range of synthesizers. This unique MIDI synth is packed with value for money features and sounds.

It incorporates a 2-track real time polyphonic MIDI sequencer with a memory of up to 300 notes. It is fully programmable and features 50 memory slots with complete MIDI features. This internal memory is expandable with the optional RAM/ROM cartridges to give you up to 150 programmes on line. The double sound generation gives you those extra warm, thick sounds. With Detune, Pitch Bend, Pink Noise and Chorus, the world of sounds is at your fingertips.

Additionally you have a fully dynamic touch sensitive keyboard to inject that extra feeling.

Being so light it can be used as a shoulder synth to add action to your stage performance. The optional 'Neck' allows control of program set-up, Sustain, MIDI On/Off and guitar-like effects via the pitch ribbon control.

All in all this is an outstanding professional's instrument at an incredibly low price. Come in and try it for yourself... or if you're too far away remember you can try one at home on our "7 day no quibble money back offer".



CASH PRICE	£399
DEPOSIT	£40
10x WEEKLY PAYMENTS	£8.70
TOTAL CREDIT PRICE	£528.00

INTRODUCTORY £399 OFFER

UNBEATABLE SYNTHESIZERS

SIEL DK80 SYNTH



The dynamic, bitronic stereo synthesizer with built-in sequencer is a revelation. The DK80 has 12 voices and is packed with excellent features such as double sound generation, fully dynamic touch sensitive keyboard, a 2 track polyphonic sequencer, user-definable split point and MIDI. An outstanding professional's instrument at an incredibly low price.

CHASE PRICE £499
 CASH PRICE £499
 DEPOSIT £50
 104 WEEKLY PAYMENTS £57
 TOTAL CREDIT PRICE £961.12

SIEL SYNTHESIZER MODULE



Virtually an 8 voice DK80 without the keys, the Siel Module includes a real time two track sequencer, memory, dynamic response, etc. At this price no keyboard with MIDI should be without one.

CHASE PRICE £299
 CASH PRICE £299
 DEPOSIT £32
 104 WEEKLY PAYMENTS £32
 TOTAL CREDIT PRICE £396.08

CLEARANCE BARGAINS

SIEL MONO SYNTHESIZER



An impressive range of sounds from this impressively low priced synth. Extremely easy to play. With many applications you could wish for. Well worth an inspection.

CHASE PRICE £199
 R.R.P. £299
 CHASE PRICE £199
TO CLEAR

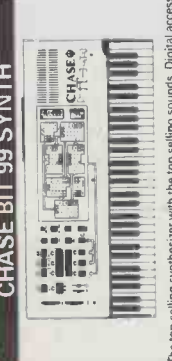
CHASE SPIRIT SYNTH



There has never been a monophonic synthesizer quite like this before. It's the ultimate, the most versatile, the latest solo sound around. It's so and try it's own, especially when 2 oscillators with independent with 2412dB waveshaping ADSR envelopes. 2 VCA's. Sounds you've been looking for, selection much more. It can give you the sounds you've been looking for, much, much more.

R.R.P. £399
CHASE PRICE £299
TO CLEAR

CHASE BIT 99 SYNTH



The top selling synthesizer with the top selling sounds. Digital access combined with analogue filtering gives that extra warmth and versatility. Add touch sensitivity, the ultimate in sound selectivity, memory, white noise, splits, doubling, detune etc. - all programmable and MIDI and you've got to be talking about the Chase Bit 99. Undoubtedly the tops for sound, the tops for value. Now you've not focus to clear, it's a second rate synth.

CHASE PRICE £599
 CASH PRICE £599
 DEPOSIT £60
 104 WEEKLY PAYMENTS £706
 TOTAL CREDIT PRICE £793.20

CHASE BIT 01 SYNTH MODULE



All the famous Chase Bit sounds are here in what is basically a Chase Bit 99 without the keyboard. Full synth, guitar, etc. with MIDI. Fully programmable. Full dynamics. Adds splits to your keyboard even if it has none. Many other superb features from this top value module.

CHASE PRICE £449
 CASH PRICE £449
 DEPOSIT £45
 104 WEEKLY PAYMENTS £526
 TOTAL CREDIT PRICE £594.12

BUY BY PHONE

RING 061-236 6794

You can reverse the charges.

GUITARS

Hondo, BC Rich, Aria, Hohner, Fender and many more famous makes.

Massive bulk purchase of electric guitars now on offer at prices you won't believe!

£49, £59, £69 etc.

AMPLIFIERS

V. Amps, Carlsbro, Ohm, Tusc and many more famous names.

Good selection at huge savings.

NOW FROM AS £49

LITTLE AS

CASIO JVC

complete range available at unbeatable prices RING FOR DETAILS

WANTED

Second Hand Synths, Keyboards, Organs, Guitars, Amps, etc.

BEST PRICES PAID

B.C. RICH

B.C. RICH GUITARS NOW AVAILABLE IN THE U.K.

ANOTHER CHASE EXCLUSIVE

HALF PRICE PIANOS

CHASE DP80 PIANO

12 incredible Piano Voices, the ability to create your own and a keyboard response you can tailor to your touch.

THE VOICES. Six down at the Chase DP 80 and you'll discover the world's most popular pianos are at your fingertips. Six presets function in two modes, the first six being more traditional acoustic and electric piano sounds, the second six offering more brilliant definitions. **FREE SECTION.** This seventh preset enables you to control the very special Free Filter Section. This section lets you create your own piano sounds, plus many expressive synthesizer voices individually coloured by the energy you direct into the keyboard. The DP 80's 88 keys don't have to conform to it. You can now adjust to suit your style and touch. You R.R.P. £899

CHASE PRICE £449
 CASH PRICE £449
 DEPOSIT £45
 104 WEEKLY PAYMENTS £526
 TOTAL CREDIT PRICE £594.12

CHASE DP30 PIANO

The new budget version of the world famous Chase DP series, ranging from a mellow line piano to many important synthesizer sounds. You simply select a family and use the Filter, Spanshovy control on the front panel. You can also add Chorus and change the Bass and Treble controls. One major feature is the new from subtle to powerful, with the professionally tailored action.

R.R.P. £749

CHASE PRICE £549
SALE PRICE £349
 CASH PRICE £349
 DEPOSIT £35
 104 WEEKLY PAYMENTS £411
 TOTAL CREDIT PRICE £462.44

SIEL PX jr. PIANO

A fully polyphonic touch sensitive electronic piano with 5 presets and stereo chorus. Comes complete with built in amplifier and speaker with stereo output facilities.

R.R.P. £399

CHASE PRICE £299
SALE PRICE £199
 CASH PRICE £199
 DEPOSIT £24
 104 WEEKLY PAYMENTS £234
 TOTAL CREDIT PRICE £263.16

CHASE BABY GRAND PIANO

A Baby Grand Piano, 45" wide and only 35" front to back. The Chase Baby Grand has 12 presets of Piano, Electric Grand and many more famous names. The control gives you a desirable variety of the presets. And if you want to change any of the presets, a hand on the front panel response is adjustable to suit your hands. A built-in Tremolo and Detune feature let you create a variety of sounds. The instrument is portable. It has a built-in amplifier (ad. Wants R.M.S.) which gives enough power to play the Baby Grand on every occasion available, and it can also accommodate an external instrument, and even a microphone. It weighs about 1/4th of the weight of a large piano.

R.R.P. £1199

CHASE PRICE £749
SALE PRICE £549
 CASH PRICE £549
 DEPOSIT £55
 104 WEEKLY PAYMENTS £646
 TOTAL CREDIT PRICE £778.84

SEIL PX PIANO

A fully polyphonic touch sensitive electronic piano with 10 presets and stereo chorus. Split assignable keyboard, Tremolo, Sustain and featuring the DNR Noise Reduction System. A true professional instrument.

R.R.P. £599

CHASE PRICE £489
SALE PRICE £299
 CASH PRICE £299
 DEPOSIT £30
 104 WEEKLY PAYMENTS £352
 TOTAL CREDIT PRICE £396.08

CHASE GUARANTEE

SEALING THE STANDARD FOR THE MUSIC INDUSTRY IN THE WORLD

Our reputation for giving our customers the best possible service backed up by the best possible prices. It's a reputation of which we are proud.

- 7 day no-quirks money back guarantee
- Lifetime guarantee - parts & labour
- Pay as you play plan - we've one to suit you.

HOW CAN OUR PRICES BE SO LOW?
 4% prices have always been low. We're the world's - saving you up to 20% more on some of our shows.

BUY BY PHONE SERVICE
 We accept all major credit cards. Why don't you buy by phone. Charge it that's our offer. Pay as you play plan. You can see the piano in person. Ring 061 236 6794 back.

BUY FROM CHASE
 Chase is at the forefront of service and value. Make sure you get the best value for your money. The assurance of The Chase Piano Company. We have a team of 100 staff at all of our showrooms. We have over 100 staff at all of our showrooms. We have over 100 staff at all of our showrooms.

ALAN SINCH-LUTHER
 Managing Director

CHASE

All goods subject to availability

CHASE - LONDON (Tues-Sat 10.00am-5.30pm) 22 Chalton Street, Off Euston Road, NW1. Tel: 01-387 7626/7449
 CHASE - BIRMINGHAM (Tues-Sat 10.00am-5.30pm) 10 Priory Queensway. Tel: 021-236 8146
 CHASE - MANCHESTER (Tues-Sat 10.00am-5.30pm) 58 Oldham Street, Off Piccadilly. Tel: 061-236 6794/5

Late Night Thurs till 9.00pm

Credit Available through leading Finance House. APR 36.4% Variable. Installments payable monthly.

Newsdesk

Quiz Masters

Yes, the moment has come. After sifting through literally hundreds of entries, we've selected the few lucky winners of January's Quiz of the Decade competition.

As you may recall, the Quiz was divided into three parts: a fiendishly difficult wordsearch, an almost unbelievably tricky name-that-tune section, and a well-nigh incomprehensible crossword that was made all the more difficult by a couple of unfortunate production errors that resulted in some of the clues being published wrong or, in one case, omitted altogether.

Yet despite the Quiz's complexity, E&MM readers once again did the magazine proud by not only entering in numbers, but getting a high proportion of the answers right, too.

Anyway, winner of the wordsearch section – and therefore a set of three Akai MIDI effects units, total retail value around £300 – is Dave Holroyd of Leeds who, like most of the wordsearch fans who entered, had little trouble circling the hi-tech terms concealed within the competition grid.

Victor in the name-that-tune competition is Byron Burrows of Droitwich, Worcs, who will shortly be receiving his prize of a JMS Scorewriter software package for the Commodore 64. The music – printed out by said software – was correctly identified by most of you as the lead synth line from 'Take On Me' by A-Ha. Not very difficult at all, really.

Finally, the first Casio/Keyfax all-correct crossword solver pulled out of the hat was Steve Windsor of Congleton in Cheshire, shortly to be the proud owner of a duo of Casio goodies: a CZ101 polysynth and an SZ1 multitrack digital sequencer. Well done, Steve, and well done, also, to the following crossword entrants who each get copies of Julian Colbeck's excellent 'Keyfax' book as consolation prizes. The runners-up are: Andrew Pointon, Leek, Staffs; Sean Berg, London E1; Simon Lowther, Basingstoke, Hants; Fiona Williams, Hersham, Surrey; Andrew Wright, London SW16; Graham Moore, Leicester; Eric Bludis, Antwerp, Belgium; F Edmonds, Plymouth; Martin Baker, Birmingham; Jonathan Thomson, Purley, Surrey; Ken Zetie, Maidenhead, Berks; Huw Jones, Prestatyn, Clwyd; SB Rainsbury, Gillingham, Kent; J Juss, Wolverhampton; and Graham Byrne, Oldham. Prizes

will be forwarded in due course.

If your name isn't in that list, then take heart: you still stand a chance of winning a Yamaha DX100 if you enter this month's exclusive E&MM competition. Turn to page 41 for the details. ■ Dg

Honky Tonk News

Up until recently, Essex music dealers Honky Tonk Music were trading from cramped, ageing and generally inadequate premises in Hadleigh. The store built up a reliable reputation over an 11-year period, but it was inevitable that a move would come sooner or later, and now it has.

Honky Tonk's new Superstore in Southend could prove to be a breath of fresh air (literally) for local musicians, as its 8000 sq ft of air-conditioned floor space houses huge stocks of modern musical instruments of all descriptions, all instantly playable in a relaxed, informal environment.

Good news for hi-tech fans is that synths, sequencers, computers, tape machines and

receiving two independent sets of MIDI information. And in order to make life easy for us, Quark have provided a set of MIDI In, Out and Thru sockets on both the rear and front panels.

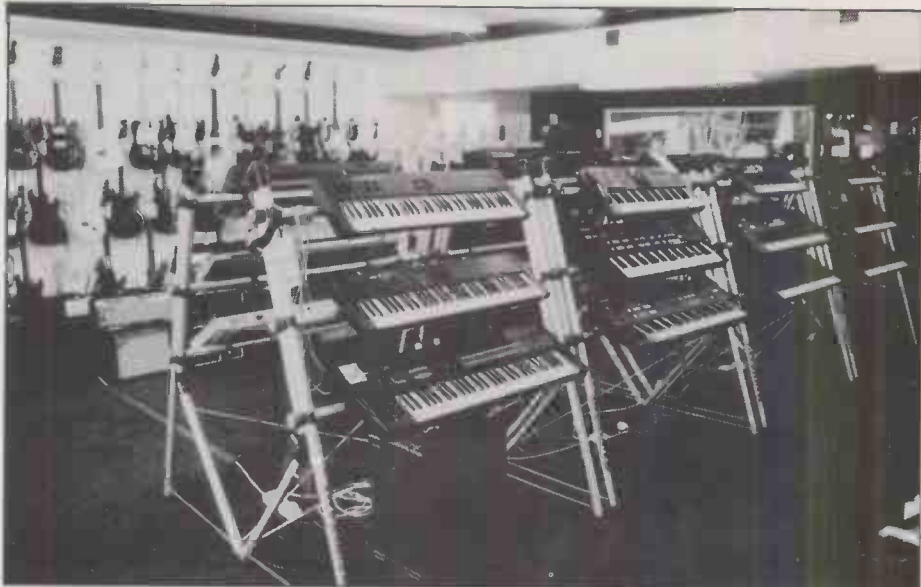
The LRM2 costs £239 including VAT, and should be available from mid-February. Quark also have a 'DI' and a studio MIDI ring-main version of the LRM2, plus a modular MIDI patchfield in the pipeline, so watch this space for further developments.

More from Quark, 16-24 Brewery Road, London N7 9NH. ☎ 01-609 8282 ■ Tg

Anvil Knocked

Sad to say, the latest news concerning the Anvil Percussion Synthesiser is all bad. Originally conceived as far back as 1982 by designer, musician and producer Rod Bowkett, the Anvil was all set to be the drum machine to end all drum machines, and it was British. Now it seems the project is doomed to failure unless financial aid is quickly forthcoming.

Apart from its Royal College of Art design,



the like have a soundproofed section of their own, away from the vintage Fenders and replacement drum skins. The Superstore's upper floor is intended for tutorial clinics, of which a number – featuring the likes of Roland, Yamaha and Akai – are already planned for the coming months.

For further information, contact Honky Tonk's music technology man, Andrew (affectionately known as Lurch), on ☎ (0702) 619615. The store itself is at 108-110 Southchurch Road, Southend, just 200 yards from the local shopping precinct. ■ Dg

No Quark Quirks

Following their successful MIDILink series, Quark have announced an addition to the line by the name of LRM2. The machine has been designed to enable MIDI signals to be transmitted over distances of up to 200 metres, as opposed to the standard 15-metre limit. Its use is directed at a variety of situations, most notably live stage sets and recording studios, where it can be handy to control MIDI equipment at a distance.

The LRM2 is capable of sending and

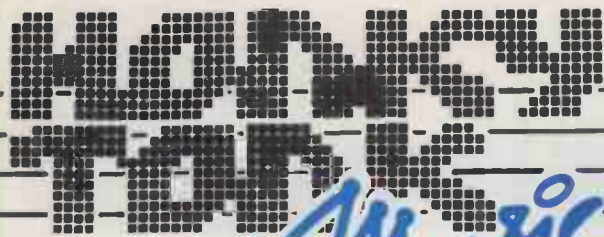
the Anvil (previewed E&MM June '85) was notable for many built-in features of great potential use to the musician. These included additive synthesis of sounds, onboard sampling, SMPTE synchronisation, external triggering and floppy disk storage of data.

The machine, in its prototype form, made it to the British Music Fair (or an annexe of it) and its Swedish counterpart last year, where it received praise from a wide variety of professional sources. Unfortunately, it appears the same enthusiasm doesn't exist where finance is concerned. In spite of the backing of the government-backed Loan Guarantee Scheme (which assures investors of the security of 80% of their outlay), it was the designers' own cash that paid for the prototype – and even this was insufficient to convince dubious investors that the project was worthy of their support.

Now the end is in sight because, as Co-director Wayne de Nicholo puts it: 'The money's simply running out.'

Anyone in a position to throw the drum machine a lifeline can contact Anvil at 29 Cholmeley Gardens, Aldred Road, London NW6, or Rod Bowkett on ☎ 01-341 5222. ■ Tg

E&MM MARCH 1986



Music

NOW OPEN



ESSEX'S LARGEST MUSICAL SUPERSTORE



EVERYTHING
FOR THE MODERN
MUSICIAN AT OUR
FABULOUS NEW
SUPERSTORE

NEW PRODUCTS FOR '86

NOW ON DEMONSTRATION

ROLAND Alpha Juno 1
ROLAND Alpha Juno 2
ROLAND PG-300 Pgmr
ROLAND TR 505 R/Comp.
BOSS Dimension 'C' Pedal
BOSS Hi-Band Flanger Pedal

DRUMS & PERCUSSION
With over 30 kits and 200
cymbals in stock from ALL
LEADING MANUFACTURERS
we really do have the finest
selection in Essex.

YAMAHA PF-70 Midi Piano
YAMAHA PF-80 Midi Piano
YAMAHA DX-27 FM Synth.
YAMAHA QX-21 Sequencer
YAMAHA RX-21-L Latin Perc.
YAMAHA VSS-100 Samp. K/b.

AMPLIFICATION & PA
With names like Marshall,
Peavey, Fender, Carlsbro,
Session, Wem, JBL etc, we
know you will be impressed.

KORG DVP-1 Vocoder/Harmonizer
KORG Poly 800 MkII with Delay
ENSONIQ Mirage Rack Sampler
CASIO CZ 3000 Synth.
MARSHALL New Guitar Combo
TASCAM 388 8-track recorder.

GUITARS/BASSES
200 in stock inc. Electric, Semi
Acoustic, Electro Acoustic and
Acoustics and Basses. Most leading
makes available.

THE LARGEST SELECTION AT THE LOWEST PRICES

TASCAM

We are now Sole Agents
in South East Essex for 30
Series recorders, 38, 34B, 32,
22-4, 22-2, 388, 246, 244, 234,
255 and Porta-One plus rack
units and accessories.
ALL IN STOCK

Essex Multi-track Centre

Huge selection of Reverbs,
Delays, Mixers, Hi-Tech rack
equipment, Microphones and
Accessories.

PLAY ALL DAY



TASCAM
FREE TAPE OFFER

Phone for details
NOW!!

A NEW EXPERIENCE IN MUSICAL SHOPPING

Anniversary Specials

To celebrate our 11th anniversary
we are offering Selected Bargains
in ALL DEPARTMENTS.

CROMER Polaris synth.....£899
YAMAHA CP35 piano.....£699
KORG Symphonic 80 piano.....£499
TAMA Techstar Elec Drums.....£599
HAYMAN 5-drum outfit.....£299
VIGIER Arpege Bass Guitar.....£450
TOKAI Talbo guitar.....£199
SOUNDCRAFT 16/2 mixer (S/h)...£299
Many more specials, phone for details

**108-110 SOUTHCHURCH ROAD, SOUTHEND-ON-SEA,
ESSEX SS1 2LX Tel: SOUTHEND (0702) 619615**



Write to: Communiqué, E&MM, Alexander House, 1 Milton Road, Cambridge CB4 1UY.

Dear E&MM

Dreamers Defended

I'd like to say a few things in reply to Graham High's condemnation of Tangerine Dream (E&MM December '85).

If you're a Tanga fan, you probably, like myself, want to buy anything and everything that they release – though you don't have to.

I'm lucky enough to work in a large record shop and was therefore able to get hold of a pre-release copy of 'Le Parc' and...well, OK, I was disappointed first spin round. But not for long. Maybe they just fancied a break after all their one-piece-per-side epics.

I agree with the criticism of the band's soundtracks, but when you actually hear them within the context of the film, they do help create the desired atmosphere. I can't help but concede that the 'Sorcerer'/'Flashpoint' comparison is a valid one, though.

Personally, I have no doubt the band will redeem themselves, as Mr High puts it, and I'm prepared to bet that the next album will be the one on which they do so. And in any case, I maintain that 'Le Parc' is not half as bad as it's been made out to be, despite the lukewarm reception it got from the critics – E&MM included.

As far as 'putting the lid on them' as a major electronic music force is concerned, that's just way, way over the top.

All I can say, Graham, is go see them on their '86 tour (Birmingham, March 17) and then see what you think.

■ Joseph Kelly
Stockport

Dear E&MM

Dreamers Attacked

Has Graham High just re-read 'The Emperor's New Clothes' or something?

I wonder how many other poor sods have been happily deluding themselves, believing that the old Tanga Magic was still there. What did it take to look at the truth, and not shy away as the rest of us did, Graham? 'Le Parc' must be one of the least inspiring wastes of precious vinyl I've heard since the last BBC Sound Effects LP.

Enlightenment: the Tanga are a spent force. It's about time we recognised it and began looking for the successors to their throne.

■ A Nicholas
Bath

.10

Dear E&MM

Eno In Harmony

Your interview with Brian Eno (E&MM December '85) was fascinating. In particular, I was intrigued by the man's comments concerning the harmonics that are so crucial to our understanding of all forms of harmony.

I spent some time last year studying these



harmonics and their mathematics, and finally resorted to computer analysis after covering countless sheets of paper with calculations. Some of my findings might be of interest.

It turns out that all 12 semitones of a key (and the minor of the same key) can be derived precisely from the first six harmonics of a fundamental, without having to resort to temperament. Furthermore, the ratios involved can be factorised using only the numbers 2, 3, 4, 5 and 6, with a lowest common denominator of 360 – the number of degrees in a circle. All the notes of a single octave can thus be represented in a circular form.

It would appear that the very word music may be derived from the Greek word 'musira'. The Arabic translation of this, 'daraja' means step, scale or ladder, and may well be the

origin of the word 'degree'. The Babylonians also divided the circle into six parts of 60 sections, and it's interesting to note the comparison between 'daraja' and the Indian word 'raga', meaning 'one of about 60 musical scales with rules for extemporising on it'.

As Eno points out, the Syntonic Comma often arises in modulation to a new key, but the same relationships hold true for the harmonics once you're there.

Studying the names for the diatonic modes of a scale – Ionian, Dorian, Phrygian, Lydian, Mixolydian, Aeolian and Locrian – it would seem they're of Greek origin. If you then attempt to transliterate these back into Greek script, Phrygian begins to look a lot like Pythagorean, and Locrian looks more like Logrian. In view of the fact that pitch as frequency is arranged logarithmically, this may even be the derivation of the word 'logarithm'.

Mr Eno seems to take all this for granted, so perhaps you could ask him what, exactly, he's been reading?

■ Peter Frazer
Preston

Dear E&MM

Graphic Message

I'm currently studying a degree course in Scientific Information Design. My final year's project is to design a vehicle to solve a visual communication problem.

As music is my prime interest outside the course, I'd be interested to hear from anyone in the music field with a need to communicate a scientific or technical message relating to musical instrument technology. Such needs may well exist in education, research, industry or entertainment – any of which might provide a valid starting point for the project.

Any audio-visual medium can be used to convey the message, including newer techniques such as holography and interactive displays.

I hope I'm not alone in my fascination: someone, somewhere needs to say something about musical instrument technology, recording, or related matters to someone else, and they might benefit from the skills of a graphic designer with a vested interest.

I can be contacted at Cherry Tree Cottage, Grove View, Bristol Road, Hambrook, Bristol BS16 1RE.

■ Mark J Perry
Bristol

SAVE MORE MONEY

30 instantly available preset ROM effects are incorporated covering a wide variety of reverberations as well as delay, ambience and liveness effects. A further 60 effects can be programmed by the user, to be stored and recalled at the touch of a button.



REV 7
rrp £1199.00
ABC PRICE
£950.00

New Akai Sampler

An unlimited sound source for creating new musical environments - the new MIDI quality with 12 bit sampling. Call in for a demo and amaze yourself!

KEYBOARDS

Roland Alpha Juno II.....	
Roland Alpha Juno I.....	
Roland JX8P.....	
Roland MKB200 New Mother Keyboard.....	
Yamaha DX100.....	
Yamaha DX21.....	
Yamaha DX7.....	
Yamaha DX5.....	
Yamaha TX7 Expander.....	
Yamaha TX816 in stock.....	
Yamaha KX88 in stock.....	
Yamaha PF70 New MIDI piano.....	
Yamaha PF80 New MIDI piano.....	
Korg DW6000.....	
Korg DW6000.....	
Korg Poly 800 II new.....	
Casio CZ101.....	
Casio CZ1000.....	
Casio CZ3000.....	
Casio CZ5000.....	
Akai AX80.....	
ENSONIQ MIRAGE & ADVANCED SAMPLER GUIDE.....	
ENSONIQ MIRAGE SAMPLING MODULE.....	
SEQUENTIAL PROPHET 2000.....	

RRP	ABC PRICE
NEW	£799.00
NEW	£575.00
NEW	£1050.00
NEW	£599.00
NEW	£349.00
NEW	£495.00
NEW	£649.00
NEW	£1200.00
NEW	£2250.00
NEW	£499.00
NEW	£999.00
NEW	£899.00
NEW	£995.00
NEW	£1110.00
NEW	£776.00
NEW	£675.00
NEW	£575.00
NEW	£275.00
NEW	£399.00
NEW	£495.00
NEW	£595.00
NEW	£695.00
NEW	£795.00
NEW	£895.00
NEW	£799.00
NEW	£1295.00
NEW	£1995.00



RECORDING & ACCESSORIES

Fostex X15.....	£245.00
Fostex 250.....	£499.00
Fostex Model 80.....	£699.00
Fostex 450 mixer.....	£1575.00
Tascam Portaone.....	£699.00
Tascam 246 Portastudio.....	£399.00
Tascam 244 Portastudio.....	£699.00
Tascam 388.....	£699.00
Yamaha MT1X NEW 4 track recorder.....	£895.00
Yamaha Rev 7.....	£2450.00
Yamaha SB1X NEW digital multi-effect processor.....	£449.00
Yamaha GC2020 Compressor.....	£999.00
Yamaha GQ1031 Graphic.....	£599.00
Yamaha GQ2031 Stereo Graphic.....	£229.00
Roland SRV2000.....	£199.00
Alesis MIDI verb.....	£349.00
NEW Alesis XT Reverb.....	£399.00
Boss Micro-Rack In Stock.....	£999.00



PLAY ALL DAY

TASCAM FREE TAPE OFFER

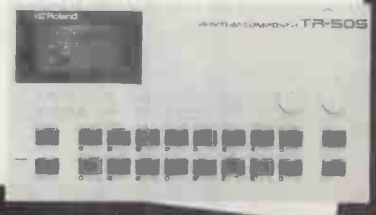


12 FREE TAPES with every Tascam Portastudio. Ask for Details

SAVE ££'s on Peavey, Carlsbro, Roland H/H Session V-Amp up to 30% off Aria, Ibanez, Yamaha, Tokai, Fender guitars

DRUM MACHINES & SEQUENCERS

Roland TR505 NEW.....	
Roland TR707.....	
Roland TR727.....	
Roland PAD8.....	
Roland Electronic Drum Kit In Stock.....	£225.00
Yamaha RX21.....	£465.00
Yamaha RX21L Latin NEW.....	£465.00
Yamaha RX15.....	£350.00
Yamaha RX11.....	£249.00
Yamaha QX21L NEW sequencer.....	£449.00
Yamaha QX7 Sequencer.....	£699.00
Yamaha QX1 Super Sequencer.....	£259.00
Korg SQD1 Sequencer.....	£325.00
Casio SZ1 Sequencer.....	£1995.00
NEW YAMAHA COMPUTER SOFTWARE AVAILABLE NOW!.....	£549.00
	£245.00



Ensoniq MIRAGE

NEW MIRAGE MIDI SAMPLING MODULE AVAILABLE NOW!



Ensoniq Mirage now at the new low price of £1,295.00

ABC music

44 St. Clements, Oxford
Tel: 0865 725221
324-326 Farnham Rd., Slough
Tel: 0753 822754

14-16 High St., Addlestone, Surrey, Junction 11 - M25
Tel: 0932 40139/54877
56 Surbiton Rd., Kingston
Tel: 01-546 9877

ABC PRICE POLICY
Aren't you fed up and confused with seeing 'Best Price' Ring for Lowest Price on so many of our competitor's advertisements. We at ABC are not afraid to publish our prices - because not only do we offer low prices (IF YOU SEE A LOWER GENUINE PUBLISHED PRICE - WE'LL MATCH IT - as long as it is in stock)

Late night Thursdays till 7.00 p.m. Instant credit available up to £1,000 (subject to status)

Sycologic was formed to provide innovative new products which allow the modern musician creative freedom within the confines of today's available technologies. Three such projects are the PSP, Mi4 and M16.

The Percussion Signal Processor opens up a whole new world for the electronic percussionist. In addition to conventional pad to MIDI and MIDI to trigger conversion facilities, signal processing tasks are performed. Playing information from up to 8 drum pads and a hi-hat pedal is both digitised and regenerated, enabling the PSP to enhance a standard electronic drum kit's playability, whilst providing an advanced MIDI interface. Each pad can be assigned several performance parameters including MIDI Program, Note, Gate Time, Pitch Bend, 'Feel' and Channel. These may be adjusted independently or selected from a bank of 50 user-definable Patches. To assist live playing, Patches may be selected remotely from the drum pads allowing the drummer to select new configurations without touching a button. In addition, sound processing software has been included to allow dynamic MIDI events to be generated from sound sources connected to the pad inputs. Considering all of these advanced features the PSP must be the key component of any 'state of the art' percussion set-up.

As the number of instruments incorporating MIDI increases, the problem of interconnection becomes more of a nightmare. A solution can be found using Sycologic's MIDI Matrix switchers. These unique devices reduce the limitations encountered with MIDI 'Chain Networks' allowing instruments to be configured at the touch of a button.

The Mi4 is a 4 by 4 Matrix which allows any one of 4 MIDI Sources to talk to any combination of 4 MIDI Destinations. Connection points on the Matrix are made digitally by selecting the required Source and Destination buttons, or remotely, using the optional Mi4R infra-red transmitter. A connection is indicated by an LED at the

intersection of the lines on the Matrix. The presence of MIDI data is also indicated by LED's in the Source switches. To make the Matrix clear and simple to use, white squares have been provided opposite each button allowing the connected instruments to be labelled.

For configurations of more than 4 machines, the M16 presents an ideal solution. This new device is in the form of a 16 by 16 Matrix, but with provision for the connection of 2





Expander modules allowing the system to be enlarged to 16 by 32, or 16 by 48. Matrix connections are made via a numeric keypad on the remote control panel, the patch being displayed on a 40 character by 2 line LCD. The remote panel is connected to the rack unit via a single lead allowing all the bulky MIDI connections made to the rack to be situated out of sight. Up to 32 Matrix Patches may be stored and recalled, allowing a complete Studio to be reconfigured in seconds. Patches may be changed from the remote panel or by a MIDI Patch Change from one of the 16 Source instruments. Each Source and Destination has an 8 character label which is displayed along with its number during editing. These labels can be assigned with the name of the instrument connected, saving the need to constantly refer to what machine is connected where.

Another useful feature of the Matrix is its ability to send pre-assigned Program Changes to any Destination when a new Matrix Patch is selected. This allows one MIDI Patch Change from the Master instrument to configure not only the connections of the Matrix, but also the Programs of all the instruments connected.

Sycologic — the logical solution.

interface

Your questions answered by E&MM's resident team of experts. If you have a query regarding any aspect of music technology, send it to Interface at the editorial address.

Q I've sometimes come across the term 'channel aftertouch' in your synthesiser reviews. Could you explain what the 'channel' part means?

■ Andy Salmon
■ Stourbridge

A Most touch-sensitive synths are capable of applying only a single aftertouch value to their voices at any one time: if you hold down two notes and vary the pressure on one, the other note will be affected as well. A few synths (very few) are capable of applying a different aftertouch value to each note and voice. The Yamaha DX1 and Prophet T8 are examples of such machines. The MIDI protocol can cope with the transmission and reception of both types of aftertouch, and in MIDI speak, the former is termed 'channel' (meaning, presumably, one value per MIDI channel) and the latter



'polyphonic'. If you're interested in MIDI at the 'bytes' level, each type of aftertouch has its own status byte and the polyphonic aftertouch code has an extra data byte to indicate which note the pressure value should be applied to. ■ St

Q Could you suggest any source of European electronic music LPs? I already know of Making Waves and Lotus Records, but neither of these stock the label that I seek. Perhaps you know an importer who could help.

■ A Iredale
■ Rotherham

A Try ESSP at The Sound House, PO Box 73b, East Molesey, Surrey, KT8 9JB, ☎ 01-979 9997. Their data library is more extensive than any we know of in the electronic music field, and if they don't stock the label you're after, they should have information on somebody who does. ■ Tg

Q I've become the proud possessor of an Atari 520ST computer, in the hope that some MIDI software will appear for it in the not-too-distant future. Do you know of anybody working on such software?

■ Godfrey Martin
■ Newcastle-under-Lyme

A To date we've heard of a trio of companies who have developed – or are in the process of developing – MIDI software for the 520. Soundwave Software in Canada and Steinberg Research in Germany have both developed 24-track sequencing packages, and we also know of a Dutch company intending to market a similar system. At present we have no more information than this, but Steinberg will be showing their package at the Frankfurt Music Fair, after which we hope to get our hands on a copy for review. In the meantime, you can contact Steinberg's UK distributor, OSC, on ☎ (08675) 5277. Soundwave Software can be reached at 378 Isabey, St Laurent, Quebec H4T 1W1, Canada, ☎ (if you can afford the pennies) 514 738-3000. ■ St

Q I am a frustrated drummer with a consuming interest in different percussion instruments, but no playing ability whatsoever. I'm therefore interested in buying some kind of programmable drum machine, but am at a loss as to decide which model would offer me the biggest library of different drum sounds; the choice of machines available seems vast. Can you help?

■ Dave Chatterton
■ London SE25

A You're right. There is a vast range of programmable drum machines available at the moment. But only a few of these offer the sort of scope you're after. In general, Japanese manufacturers (Roland, Korg, Yamaha) make you buy another load of drum machine hardware and software whenever you want more sounds; their new 'Latin' sounds are only available in self-contained beat boxes. The American attitude is more sensible: machines from Linn, Oberheim, E-mu and Sequential all offer you the facility of plugging in new sounds on chips or ROM cartridges, and several peripheral companies offer replacement sound libraries

to complement those sold by the makers. The ultimate in drum sound versatility, though, is offered by sampling drum machines, which have programmable memories for you to record your own sounds into. Of these, the Emulator SP12 (about £3000) is the most flexible and accurate, but if this is a little out of your budget, Casio's new RZ1 will offer drum sampling facilities at the very reasonable price of £350 when it arrives in the UK this Spring. ■ Dg

Q Find me the answers to these five questions and I might just buy your pulp-tech magazine on a regular basis. Fail, and I shall spend my money on one of your 'sister' magazines.

1 Why do all South Yorkshire heavy metal vocalists speak with American accents?

2 What is the correct rating for the rear panel fuse in the Mini Korg 700?

3 What is a guitar?

4 If music technology is so advanced, why does every single in the American charts sound like Prince, Giorgio Moroder, the 'Pebble Mill at One' theme, or a combination of all three?

5 Why does the Fairlight Series II carry a retail price tag of around £30,000 when the total cost of its individual components comes to £99.95?

■ R E Webster
■ Sheffield

A 1 It's due to a form of speech impediment caused by Spandex trousers and the local Tetley's Ales.

2 One amp, but a galvanised steel nail rated at around 200amps will suffice.

3 A guitar is a simple mechanical preset device for imitating a synthesiser. It has six individually tunable voices, each with its own manual pitchbend and modulation facilities. Currently out of fashion.

4 Because they're made by American artists.

5 Because the original costing was computed on Page 3 of the pre-production prototype Fairlight. ■ Tg





PROPHET 2000

Available now in keyboard or rack mount versions with optional 512K memory update. Beat the price rise on this amazing instrument and buy before March 1st

ENSONIQ MIRAGE + MULTISAMPLER

Available from stock with free ASG & format disc. Over 30 discs are now available from our library and are free to our Mirage customers



ROLAND ALPHA JUNO 2

Alpha Juno 1 with extended keyboard and touch & pressure sensitivity



STEINBERG PRO 16 SEQUENCER

This excellent software package for the Commodore 64 computer is flying out of the door, come and find out why we think its the best available.

360 SYSTEMS MIDI BASS

The first of our new products purchased at NAMM and arriving imminently. If you have a studio or a MIDI sequencer system you need one of these. Come and find out why.



REPAIR DEPARTMENT

Our service department is one of the most professional in England. For all modifications and repairs call Tim on 01-240 0085

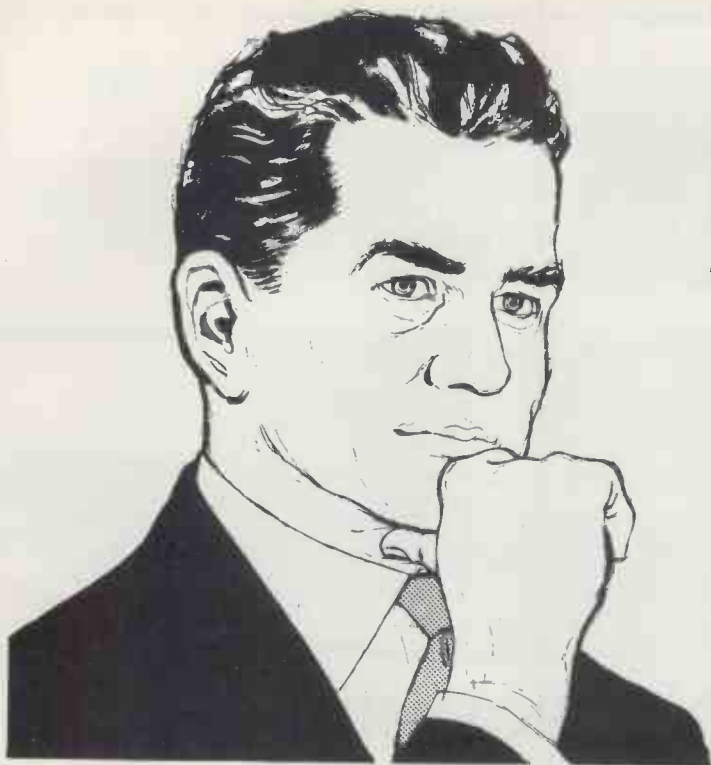
NAMM '86 REPORT

We have recently returned from California with news of all forthcoming products including the exceptional Ensoniq Digital Piano the Sequential VS synth. Call in and pick up a copy of our newsletter - be the best informed!

Rod Argent's Keyboards

20 Denmark Street London WC2
Telephone 01-379 6690 (sales) 01-240 0085 (service)





FIVE YEARS AGO

March 1981 was notable for many things, from which the launch of E&MM stands out like a polar bear in a snowstorm. The Editor sets the record straight.

Unbelievable as it may seem, *Electronics & Music Maker* was launched onto an unsuspecting world exactly five years ago, in March 1981. The electronics, computing and music industries had already caught a glimpse of what we in the publishing trade call a dummy issue, though sadly, many leading music business figures were absent from the grand London launch party, due to a small oversight on the part of E&MM's original management, who set the launch date for the week of the Frankfurt Musikmesse.

Despite this somewhat inauspicious start, E&MM March 1981 was an impressive magazine that betrayed few signs of being a new title venturing into virgin publishing territory. At that time, musicians could choose only between *International Musician* and the long-since deceased *Sound International* as a monthly source of musical information and guidance. From the start, E&MM was a valid alternative to those conservative 'less gear, more beer' magazines. Even if, in its desire to be all things to all men, it sometimes cast too wide a net to embrace such peripheral — some would say completely irrelevant — topics as a build-it-yourself car battery



monitor, an industry profile on a plastic box manufacturer, and a CB radio column by a man who signed off with the words 'till next month, stay clean and green, 10-10, The Elf'. And yes, all those items appeared in the first issue of E&MM.

By way of a contrast, that inaugural edition also contained a review (the only one) of the latest Yamaha polyphonic synthesiser, an introduction to synth programming techniques, and a news page that had details of both the Fairlight and the Synclavier II. None of those features appears dated five years on, and none would seem out of place in this issue of E&MM.

Some of the authors' names are still familiar, too. Ian Waugh, the man who foxed so many with his JMS 'Name That Tune' competition just two months ago, was writing a column called 'America' from his bedsit in Middlesbrough; somehow, he always managed to get hold of the US brochures before anybody else did. Ben Duncan, still a regular contributor to our sister magazine, *Home & Studio Recording*, was passing on heartfelt advice to would-be DJs in another regular column. And Vince S Hill, now Akai UK's hi-tech product specialist but still an occasional E&MM feature writer, was beginning his guide to Electronic Music Techniques — he was credited in the staff list with the post of 'Electro-Music Consultant'.

The then Editor, and the man whose brainchild E&MM was, smiled confidently from that first issue's leader page, outlining his magazine's manifesto for the years to come, and signing his name — Mike Beecher — at the end. Below his piece was a selection of encouraging letters from such luminaries as Desmond Briscoe of the BBC Radiophonic Workshop (whose facilities E&MM visited for the first time in that issue) and Fred Mead of Brodr Jorgensen, now Roland UK.

Followers of advertising would recognise some of the company names taking space in the embryo E&MM, though by no means all of them. Yamaha had a full-colour page on the inside back cover, while the Korg division of Rose Morris had a half-page promoting a tuner. But whatever happened to Tangerine Computer E&MM MARCH 1986

Systems, Lamina Keyboards, and Baydis Transformers of Herne Bay, all eagerly plying their wares in E&MM Volume 1, Number 1?

E&MM looked a lot different in 1981. To begin with, it was printed on paper only slightly higher in grade than an Andrex economy roll. Editorial colour was completely non-existent (there weren't even any blue or red bits), but the publishers did lash out an extra £200 to pay for the front cover to be printed partly in silver ink.

Talking of the cover, the magazine's logo was the first of three incarnations including the current style, and was dropped barely six months after the launch date, for the very good reason that nobody could read it. Catching the eye on the news-stands in March '81 were two DIY keyboards, the E&MM Spectrum monosynth (designed by Chris Jordan, now of Music 500 fame) and the Matinée organ, an unwieldy teak-covered leviathan with two keyboards, pedals, and — horror of horrors — a preset rhythm box all included in the price. There were two special offers: one for some surplus wire-cutting tools that didn't work (as a letter from Outraged Of Berkshire in Issue 3 testified), the other for an album of music by the aforesaid Radiophonic Workshop.

Sad to say, vast increases in the cost of that paper (now significantly upgraded, of course) have meant that E&MM now costs almost twice as much as it did in March 1981, when just 65p bought you 'The No 1 Monthly For The Electronics & Music Hobbyist'.

But for us, E&MM's current staff, five years older but not necessarily five years wiser, the highlight of this melange of the sublime, the ridiculous and the downright incomprehensible, lies on the magazine's last page, nestling between the advertisers' index and a short piece describing the E&MM logo. It's a poem, as far as we know the only piece of non-prose writing ever to appear within these hallowed pages. The author clearly wished to remain anonymous, signing himself simply as 'Stichos', which is what you'll be in after reading the verse.

Before we go any further, it should be pointed out that copies of the first E&MM are now extremely rare and fetching considerable sums on the black market, as the magazine completely sold out within days of its arrival on the bookstalls. Even the E&MM office has just the one copy, proof that the magazine was as well tailored to the needs of the musicians of five years ago as it is to those of today.

Will the fifth anniversary issue go

on to be a collector's item? Hang on to this issue and find out.

But enough of all this. Here, for those who missed it the first time because (a) the newsgagents had sold out, (b) they had far better things to do with their time than play music, or (c) they weren't actually born in 1981, is the poem that launched a thousand issues — well, at least 60 — by neatly chronicling the development of man's love affair with music.

QUO ZOG?

The pattering primordial rain
Made Zog the Caveman think again
That life was brutish, short and dull,
So, with defiant rebel shout,
Two bones he seized and then beat out
Bold rhythms on an unfleshed skull.

Now Zog the Minstrel tunes his strings
And with his harp a Saga sings
In vaulted, firelit Viking Hall
Telling of Heroes' feats of arms
Opposing Gods with magic Charms
Whilst holding Cowardice in thrall.

Tending his flocks in Greece, Zog knew
Cloven imprints where willows grew
That marked the passing tread of Pan;
But, with syrinx-added travel,
Sought, by piping, to unravel
The God-given Destiny of Man.

The choleric clang of sword on shield
To Legionary Zog appealed
And Cohorts thought him worth his salt
Because his need for rhythmic beat
Was satisfied by marching feet,
With contrapuntal cries of 'Halt'.

The world of Zog the Brit seemed good
So he — as true-blue chappie would —
Takes God as Partner without qualms,
Takes rosin-tortured gut and plays
Bland tunes, (near swamped by clatt'ring
trays),
Beneath the shade of indoor Palms.

Zog — as a slave — laden with gyves —
In a strange land — 'mid stranger lives —
Blew soft on reed with poignant art
And made the golden surface-gloss
O'er ride the silver pain of Loss,
As Music can — played from the heart.

Compuphonic Zog the Euro
Screams defiance in crescendo
Unhearthful of a Wrath Divine,
While the searing Laser's flicker,
And drum-beats made forever quicker,
Means the skull that's pounded now — is mine!

Thus we skim the mellifluous pages
Of Mankind's music through the ages;
But, as we end the present text —
We wonder what will happen next?

...What indeed? ■ Dg

TALK TA



After years of their being successful in every European territory except Britain, popular opinion suggests 1986 could be Talk Talk's year. Their third album, released this month, is carefully constructed and unusually arranged.

Interview Tim Goodyer

TALK TO ME

It's taken two years to appear, it's called *The Colour of Spring*, it contains almost no synthesisers at all, and it's Talk Talk's third LP. Oh, and one other thing – it's bloody good.

You could be forgiven for thinking Talk Talk had ceased trading, as up till now, nothing had been heard from them since their second album *It's My Life* was released early in 1984. But the truth of the matter is that they're alive and well, and have spent a fair bit of the intervening period playing to continental audiences more appreciative than those in their homeland. But now they've returned to Britain and are ready to give their countrymen a taste of what they've been missing out on for the last couple of years.

The main force behind Talk Talk is founder Mark Hollis who, along with producer Tim Friese-Greene,

makes up the songwriting team and a large proportion of the keyboard-playing talent; Hollis also takes care of most of the singing.

The pair share a remarkable empathy, tossing replies to my questions between them with unnerving continuity and singularity of purpose. Their philosophies are refined, and lie in an area well outside that usually associated with pop musicians. Perhaps that's why they don't associate themselves with pop at all...

'By definition, something that is popular is something that's liked by a lot of people', says Hollis. 'When we're making an album we don't give any consideration to how many people like it. Therefore, by definition, we are not pop musicians.'

Originally the band had a keyboardist by the name of Simon Brenner, who played on *The Party's*

Over, Talk Talk's debut long-player. Now the regular line-up consists only of Hollis, drummer Lee Harris and bassist Paul Webb. This skeleton crew is regularly augmented by the production skills of Friese-Greene, together with a long list of session men like guitarist David Rhodes and keyboard player Ian Curnow.

In between, the band's most successful album, *It's My Life* was released in 1984 and achieved gold record status in every European country – except Britain.

Of good songs Talk Talk have no shortage, but mass popularity has evaded them persistently throughout their career to date. It's not really difficult to see why. The band were launched on the tail end of the New Wave in early 1981, but they neither looked nor sounded the part they seemed to want to play. But how else would you categorise a band playing conventional songs ▶



Talk Talk frontman Mark Hollis sits on left in messy EMI demo studio; producer Tim Friese-Greene is alongside, discussing the ins and outs of modern technology. Together they have created one of 1986's most inspiring albums, but have rejected synths almost out of hand

► with the aid of fashionable technology like synthesisers and Simmons drums? In the early days, the audiences Talk Talk played to misinterpreted them, and the majority of their potential fans never heard them. Hollis was unconcerned, and remains so to this day.

'I don't think it really matters whether we're misinterpreted or not, because you can't misinterpret yourself. If you look at music as being art as opposed to technology,

'Synths are becoming less expressive as technology develops: when they first appeared you had to play them, now you just write your part and have it played by a bunch of chips.'

in the same way that you might look at painting as being art as opposed to mathematics, then you're left with *intention*. You either do it for the right reasons or the wrong ones. If you do it for the right reasons, no matter how crap it is to anyone else, it's good; if you do it for the wrong reasons, no matter how good it is, it's crap.'

After talking to him for only a short while, it becomes obvious Hollis has an almost total disinterest in interviews — he claims never to read any, not even his own. Yet it isn't fair to call the Talk Talk frontman evasive. In fact, he is disarmingly frank and has an answer to everything, even if he remains difficult to pin down on many issues.

His casual manner and speech are in sharp contradiction to the sensitive lyrics and extraordinary command of melody that appear in Talk Talk's music. *The Colour of Spring* is a beautifully considered album that features some of Hollis' most lovingly crafted material.

Yet it's not a commercial venture: the songs are long, unusually arranged, and occasionally dischordant. The 'organic' sounds and whimsical vocal style bear more than a passing resemblance to David Sylvian's *Brilliant Trees*, and that didn't exactly set the album charts aglow.

Hollis himself is far from eager to

go into detail about the creation of *The Colour of Spring*. What does concern him is none other than our old friend, music — not to be confused with musicianship, which carries little weight by comparison.

'To me, feel is the most important thing, not technique. Take all that soul and gospel stuff: that's got incredible feel, but it's not necessarily great musicianship.'

The first single to be taken from *The Colour of Spring*, 'Life's What You Make It' has surprised

everybody by achieving a Top 20 chart placing with astounding ease, but again, it's not a particularly commercial song, with its oversimple beat, its repetitive piano riff, and its decidedly 'this is not a love song' lyrics. If it sounds like anything, it's a Tears For Fears outtake, but it isn't melodic enough — or jolly enough, despite the song's optimistic message — to gain massive exposure.

I venture that another song from the LP, 'Happiness is Easy' would have been a more obvious choice for 45rpm release; a wonderfully understated song with some delicate

'The songs on the album are all quite long — not because they've got 30 verses and 15 choruses, but because each section in a song is long in itself.'

acoustic guitar work from Robbie Macintosh, and a chorus carried by a children's choir.

But Hollis defends the choice of single in a typically unorthodox way. 'A lot of people have said it wasn't a good choice, but I've never thought of it in that way at all. With the exception of a four-part horn figure, it's the shortest track on the album, and that's why we chose it.'

'I actually have this belief that what makes a good single is how well you can boil an egg to it. For Europe we'll have to edit 'Life's What You Make It' down a bit, because they like their eggs a little more runny on the continent.'

'The songs on the album are all

quite long', says Friese-Greene. 'It's not because they've got 30 verses and 15 choruses, but because each inherent section of the song is long in itself. So, in a six-minute track, you've still only got two verses and three choruses.'

Instrumentally, acoustic piano and an old Hammond organ provide the mainstay of the keyboard work. They're accompanied by everything from that children's choir to a Variophon, a technological antique that actually offers a couple of currently fashionable musical techniques in the sampling of real sounds and breath control over those sounds. Yet anything more contemporary faces rejection by Hollis and Friese-Greene, both of whom confess a hatred of modern synth technology and the tasks it performs.

Synths formed an essential part of *The Party's Over* and *It's My Life*, so why the apparent change of heart?

'In terms of the first two albums and the live field, synths are simply an economic measure', responds Hollis. 'Beyond that, I absolutely hate synthesisers. To me, the only thing that was ever good about them was the fact that they gave you large areas of sound to work with; apart from that they're really bad — horrible. I can take their

existence from a live point of view now, but if they didn't exist, I'd be delighted.

'Synthesisers were really only a means to an end. All they've enabled us to do is go some way towards reproducing organic sounds when we haven't been able to afford the real thing. It was simply an economic measure, and without the success of the *It's My Life* LP, we wouldn't have been able to make this album in the way we have. Since *It's My Life* did sell, we had absolute freedom over time and resources for this album, so we were able to use real strings and choirs.'

'In those terms commercial success means a lot, but it is not, and

can never be, your primary consideration. It's absurd to concede your musical principles to try and make your record sell. The only important thing about the last album was that we thought it was good. I can honestly say that if it hadn't sold at all I couldn't have given a shit — but the fact that it did made me a lot happier.'

And on the subject of fashion...

'I think it's evident in the way we make records that we have no concern for trends. Basically, trends

basis. With any song, the variations are endless, so, with each LP, we've moved further and further towards an ideal situation in which to work. But, if that second album hadn't done well, we'd never have been given what we were this time around.'

Does that make the earlier Talk Talk albums inferior to *The Colour of Spring*?

'Each album is different. It's like having kids: you like their differences and you like each one

'There is no honest person who could say he's not influenced by something; once you're at the level of not being influenced by anything, you're at the level of genius.'

only last a few months. Our albums take a year to make, so that the current trend, and three more, come and go before we've finished what we're doing. You have to work outside of that as a basic starting point.'

Maybe all this dogmatism pays off, though. Talk Talk's recordings thus far form a succession of statements that follow a recognisable pattern of development. Songwriting, arranging and performing are now more mature than ever, and have obviously benefitted from the band's increasing experience. For once, Mark Hollis can but agree.

'The earlier albums were much more simplistic than *The Colour of Spring*. With the first album we were basically in the position where we'd signed the record deal and had about a month to do the recording. By the time we did *It's My Life*, because we'd had moderate success with a couple of the tracks from the first album, the record company allowed us a lot more freedom. We were really lucky, because a lot of bands would have tried to bring out more product on the back of that, whereas we had a gap of two years. We had a reasonable budget and reasonable scope in which to make the arrangements, and about six months to record.

'With this album we were given as much time as we liked, and allowed to incorporate as many people as we chose.

'We work from a songwriting

for what it is — you don't compare them with one another. The fact that they are different is the important thing. You love each of them and, at the time you conceived them, they were what you wanted them to be.'

Like many good artists, Hollis draws on a range of sources for inspiration. Influences as diverse as books and drum fills can affect what he writes, but it seems almost anything can inspire him, particularly when it comes to putting words to music.

'I'm influenced by everything', he says. 'The more areas you take influences from, the less you actually receive them. There is no honest person who could deny that he is influenced by something. Once you're at the level of not deriving anything from anybody, you're at the level of genius. There are only a few people like that.

'Lyric writing is very important. For years I never used to listen to other people's lyrics because it wasn't an important aspect of music for me. I don't think music suffered in my eyes because of that, so, equally, I don't think it harms me if other people don't listen to my lyrics. What matters to me is that I believe the lyrics I've written are good. Other people are a secondary consideration; I've no ambitions, I'm not trying to say anything to anyone.'

It's not pop, it's not meant to carry a message — so how do you

categorise your music, Mark? Is it art?

'I consider our music music, that's what it is.'

And it isn't synthesiser music. At any rate, it uses synthesisers less now than it used to...

'Synthesisers aren't human, they've got no feel to them whatsoever.'

I suggest, gently, that technical advances may have made synths more expressive, but nothing can sway Mark Hollis.

'I think they're becoming less expressive as technology develops. When synths first appeared, at least you had to play them. Now all you have to do is write your part and have it played by a bunch of chips. I think that's even worse than playing it manually.

'Then there's the question of sounds. Take the Kurzweil piano sound, which is generally held to be one of the most accurate copies of a piano: it still doesn't feel like a piano to play, and what comes out of it doesn't come out as though you were playing a real piano. There's no comparison with the real article. I suppose it's progress in terms of copying the sound, but it's not progress in terms of actual feel. I can't see why anyone should want to play a Kurzweil rather than a piano... I don't believe there's a manufactured instrument anywhere to compete with a piano.'

Tim Friese-Greene agrees. 'To me the idea of MIDIing up a piano is just plain sick. MIDI is a four-letter word, I can't take it seriously at all. There's really nothing printable I can say about it.'

And not much more I can say about it, either. I'm fed up arguing, and now all I want to do is go home and listen to the band's records again.

Talk Talk are a group of serious musicians. They take their music seriously enough to reject the lure of commerciality, to reject pressures of time and money, and to reject those aspects of technology they see as destructive.

They have made a brilliant third album, and for many people, that will be enough. Even if, in some respects, their attitudes are uncompromising to the point of being a pain. ■

SUITS ALL CASES



The **INPULSE ONE** programmable drum computer allows far more artistic expression and flexibility than has previously been possible, even for a professional drummer. Whatever your requirement, this compactly-cased unit gives you unparalleled human feel, treating you as a musician, not a computer programmer.

The wide choice of alternative sounds are stored on extremely cost-effective data cassettes, as opposed to microchips which can be prone to "changeover" damage. Amazingly – considering its price – the **INPULSE** is one of the few machines of its kind to offer on board SMPTE read and write and real-time song playback pitch change via MIDI. Allied with the capacity of real-time song programming, humanizing functions to shift beats and tempos, real-time dynamics (linked to external source transducers or MIDI keyboards if desired) and ease of programming due to the lack of dual function controls, **INPULSE ONE** is the obvious drum computer choice. It even comes with a handle.

* For an explanation of this true story, more information and a fully comprehensive colour brochure, please ring Brighton (0273) 24928.

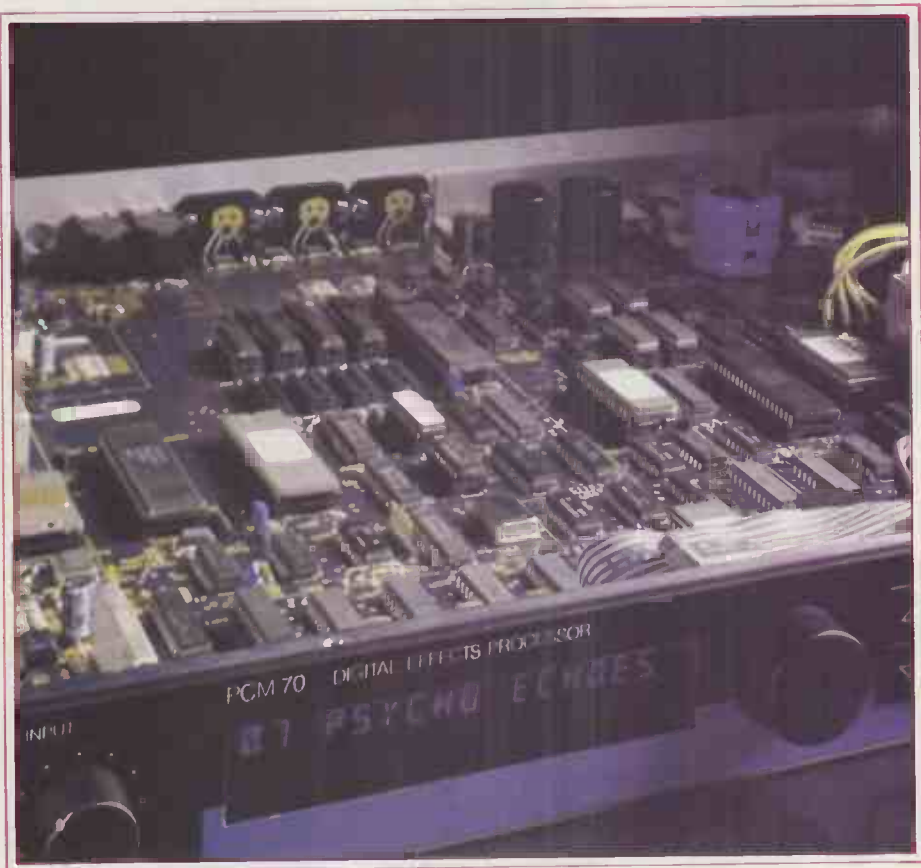
AHB

69 Ship Street, Brighton BN1 1AE Sussex. Tel: (0273) 24928. Telex: 878235 MBI AHB G
5 Connair Road, Orange, Connecticut 06477 USA. Tel: (203) 7953594

mbi/AHB

MIXING ART WITH SCIENCE

DIGITAL DANCE



Lexicon's new PCM70 is much more than a good digital reverb: it has a number of unique delay features, and allows you to control its effects dynamically from a MIDI keyboard. *Paul White*

First, a word of explanation. The Lexicon PCM70 isn't really a digital reverb at all. For once, the name on the panel tells no lies, and 'Digital Effects Processor' sums up the machine's function nicely. It can produce a wide range of reverb effects (including gated and infinite varieties), but it's also

capable of performing a good many other musical functions, such as flanging, chorus, echo, multi-delay and resonant chord programs (see later), all in stereo.

The newest Lexicon comes with around 40 preset reverb and delay effects, and room to store around 50 more of your own edited versions – the exact number varies slightly depending on the current software version.

It's a MIDI-compatible unit, so you can change its programs remotely from a MIDI

synth or sequencer. More than that, the PCM70 recognises MIDI note number, velocity and pitchbend information, so you can vary its effect parameters directly from the controlling keyboard. For instance, you can alter the reverb decay time according to the note played, or change the feedback of a delay patch from your synth's bend wheel.

For a box that does so much though, the PCM70 has relatively few controls. A multi-purpose display unit lies at the centre of operations, and to the right of this is a rotary controller that turns indefinitely, known as the Soft Controller. At various points in the manual's text, Lexicon shorten this to Soft Knob, but for reasons that should be obvious to most of you, I'll continue to refer to it by the former name. Whatever you call it, though, the control can be used to alter just about anything that's alterable on the PCM70, in conjunction with the two rows of switches to its right.

There's a pair of increment/decrement buttons and a set of pushbutton switches numbered 0 to 9, and these are used to access presets, user programs and parameters.

Further to the right is a cluster of four switches that determine which mode the machine is in. PRG selects the preset programs, REG calls up the user programs, LOAD lets you load up any selected effect ready for use, and BYP (for bypass) sends the signal to the output in much the same state it was in as it entered the machine, muting the effected part completely.

You call up Parameter mode when you want to create new effects, a process that involves loading a preset sound and then editing it, rather than starting from scratch with a 'non-effect'. The variable parameters depend on the patch called up, but for reverb, you can select from plate or room simulations and alter pre-delay, reverb time, high and low frequency damping, dry/FX balance and level. Additionally, you can alter the attack time of the initial reflections, reverb density, and even add chorus and gating to the reverb treatments.

There's a good deal more besides – depending on which preset you start out with – but if I mentioned them all, you'd probably get bored halfway through. Instead, I'll describe some of the effects in each category (and row number) and comment on any outstanding features.

Row 0 contains the Chorus, Flange and Delay effects, and these include ►

► some extremely effective multi-tapped delay treatments. Preset patches include Spin Echo, Swarble and Psycho Echoes, names that all seem quite appropriate once you've heard the relevant effect. In this row, it's possible to alter the delay time of each of six taps, all of which have individually adjustable delay time, feedback and pan position. Maximum delay time is 432mS.

Row 1 contains what are referred to as Multi-band Delay programs. Again, these have six available taps which have independent level, delay, pan and HF/LF filtering, but the first two voices or taps have further control over feedback, while a master diffusion control affects all the taps. Maximum delay time in this instance is higher, at 936mS.

Row 2 brings us onto the mysterious Resonant Chord programs mentioned at the start. Everyone knows what flanging, phasing and echo effects are, but resonant chords? Well, here's my attempt at an explanation.

You may be familiar with the effect achieved by setting up a delay unit to give a very short delay, and then applying feedback. On feeding a drum beat into the unit in question, the delay line resonates and produces a distinctive note, the pitch of which can be varied by changing the decay time. The Lexicon goes one better than this by offering six such delays. These can be tuned to the notes of a chord and then sequenced, so that an input creates an arpeggio as the different resonances are excited in sequence. Each of the six resonators has variable level, pitch, duration and high-frequency cutoff. In addition, there's a master resonance control which increases or decreases the resonance of all six sections simultaneously.

Along with several other effects available within the PCM70, the resonant chord programs contain the letters BPM – standing for beats per minute – in their names. This facility enables you to program the rate at which the effect occurs in beats per minute, so you can match the tempo of the effect to the piece of music you're working on – especially neat if your music is playing to the metronomic beat of a sequencer or drum machine.

Remember, though, that the resonant chord feature is only really usable on voices and instruments if the notes of the arpeggio don't clash with the key of your song. To this end, the selection of treatments contains major, minor, seventh and thirteenth chords to get you started, and the overall pitch can be controlled in semitone steps.

If you doubt the validity of this feature (as I

did initially), bear in mind that with it, a single drum machine can be made to sound like an entire backing track in any key of your choice, and that the pitch of a chord or arpeggio can be varied via MIDI to produce different musical arrangements. It's a must for anyone involved in recording ambient or mood music – the more you play with the section, the more you discover.

Row 3 contains a selection of Concert Hall reverb programs of fairly low reverb density. All the reverb parameters can be changed to produce a wide range of user reverb effects, making this section an obvious source of building blocks from which to edit your own reverb patches.

The same can be said for Row 4, designated Rich Chamber. This sounds like Paul Ghetty's loo, but turns out to be a source of good general-purpose reverb treatments – useful if several instruments within a mix need to be processed at once, as many of the effects are clean and unobtrusive.

Row 5 presents a selection of Rich Plate programs, which are a fine basis for percussion treatments, as they're bright and have a high level of initial diffusion.

Incidentally, all the Lexicon's reverb programs offer around 20 user-variable parameters which the manual lists in the form of a set of tables, and gating may be applied to any reverb setting via the editing system.

Row 6 doesn't contain any new effects as such, but is used to store existing programs whose patch parameters are assigned to specific kinds of MIDI data. Patches exist for controls that feature on many popular synths, but there's no need to worry if you need something a little different, because you can edit the patch parameters to suit your own needs. For example, the Lexicon's Mix parameter is assigned to operate from the data entry control fitted to most synths, but you can change this if your synth doesn't use a data entry controller.

All these pre-programmed patches are detailed in the manual, and editing isn't too difficult once you know what you want to achieve.

Row 7 contains switching software that takes care of memory protection, auto-loading and MIDI mode and channel assignment. The PCM70 transmits and receives on all 16 MIDI channels with Omni, Poly or Mono status, and note numbers between 0 and 127 are recognised, as are

program changes over the same range.

Objectively, the Lexicon comes with a fairly high technical spec in terms of dynamic range, bandwidth and distortion, the figures being 80dB, 20Hz-15kHz and 0.05% respectively for the effected sound.

Subjectively, there's little to choose between the new generation of digital reverbs, though they all sound subtly different when compared directly. Digital reverb always sounds artificial in test conditions, but it's an artificiality that's become accepted as the norm, and there's no real harm in that. If a machine saves you having to take your drum machine into a Cappadocian cave and gives you a sound almost indistinguishable from what you'd have achieved had you done so, it makes sense to use it.

The PCM70's reverb programs are of high quality, and their range is amongst the most flexible available; the only obvious omission is a reverse reverb preset, and no way that I could find of simulating one.

The delay effects are of a similarly high standard, and the multi-delay treatments are particularly versatile. The only problem here – and this is something relevant to all machines that combine reverb with longer-delay effects – is simply that you can only use one effect at any one time. Thus, in a recording situation, you're forced to use chorus and flanging effects as you lay the tracks down if you want to use reverb during mixdown. An important practical consideration, that.

The Lexicon is surprisingly easy to use: you don't have to keep going back to the manual to find out what the controls do, as the operating system is utterly logical. However, there are so many parameters to edit that it's all too easy to feel obliged to alter every one of them. Further proof that the more options technology gives you, the more confused you're likely to become.

It's an expensive machine, this Lexicon, and I can only recommend it if you have a real need for its auxiliary effects and/or its unique facilities like the resonant chord feature and the beats-per-minute programmability. If you don't, you can get a good reverb-only device for about half the money.

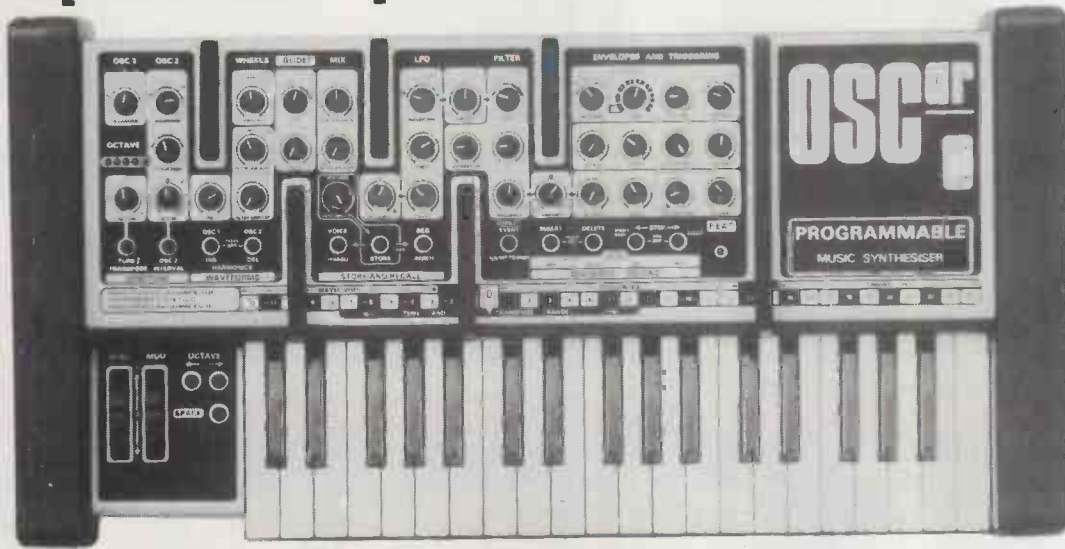
Still, this is the first digital effects unit to offer dynamic MIDI control over reverb and delay parameters, and I suspect that for many keyboard players, this will prove an irresistible attraction. ■

Price RRP £2127 including VAT
More from Scenic Sound Equipment, Unit 2,
10 William Road, London NW1. ☎ 01-387
1262

Add your name to this list

by taking advantage of this special offer to E&MM readers.

The classic OSCar programmable MIDI synth for only **£375** inc VAT and P&P



Ever since the OSCar first appeared, we have championed it as *the* programmable lead and bass synthesizer, and the list of featured artists who have praised it in our pages read like a who's who of modern music. But it was the addition of MIDI to the design which really ensured that it would never become obsolete. And who can argue with the flexibility and power of its voicing:

VOICING – Analogue and digital waveform generation 12 preset waveforms and user programmable

FILTERING – Two analogue filters with low, band and high pass configurations

LFO – 5 waveforms, with delay, routable to pitch, filter or amplifier

ENVELOPES – separate ADSR for filter and amp, routable to pitch

SEQUENCER – 1500 event MIDI editable sequencer with 12 sequences and 10 chains

ARPEGGIATOR – Assignable up, down or up/down with hold and insert functions

TRIGGERING – via MIDI, clicks per quarter note or envelope repeat

WHEELS – Bend and mod wheel sprung for optimum performance expression

GUARANTEE – The OSCar is fully guaranteed for 12 months – parts and labour

We only have a limited number of this fine synthesizer at this remarkable price, so act now, join the exclusive club of OSCar users and save yourself £200 at the same time.

CREDIT CARD HOLDERS: PHONE YOUR ORDER THROUGH ON 0223 313722 QUOTING YOUR ACCESS/VISA CARD NUMBER

Geoff Downes/Asia

Keith Emerson/ELP

Vangelis

Midge Ure/Ultravox

Billy Currie/Ultravox

Chris Cross/Ultravox

Bronski Beat

Tim Lever/Dead or Alive

Dave West/Go West

Mark Stanway/Magnum

Gary Numan

John Foxx

Quincy Jones

Motown Studios

Oscar Peterson

Ashley Ingrams/Imagination

Steve Howe/GTR

Steve Hackett/GTR

Mickael Boddicker

Michael Nyman

Philip Glass

BBC Radiophonic Workshop

Send to OSCar Special Offer, Music Maker Publications, Alexander House, 1 Milton Road, Cambridge CB4 1UY. * Please rush me an OSCar I enclose a cheque/PO (made payable to Music Maker Publications) for:

£ _____

* Please send me more information

Name _____

Address _____

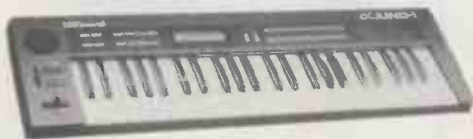
(*delete as applicable)

FUTURE MUSIC PRICE PLEDGE! - PHONE ANY BRANCH FOR DETAILS!

ROLAND DRUMS OPEN EVENING at London Shops! Phone for details!

Roland

NEW! ALPHA JUNO 1! 6 VOICE POLYSYNTH



£575

All new cosmetics terrific sounds! Fantastic value! Look at these features: 49 notes, 63 memories, 16 character LCD display
New LSI chip gives complex waveforms! New Dial System! Limited supplies in stock. Call for demo.

NEW! ROLAND MC500 MICRO COMPOSER

Micro composer with built-in 3.5" disc drive. Holds 100,000 notes per disc. Internal memory capacity 40,000 notes. Alpha Dial. LCD display. MIDI.

£799



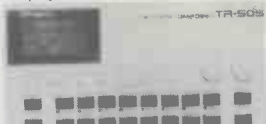
COMING SOON!!! NEW SUPER JX10 POLYSYNTH £90A

Super JX10, the ultimate analogue polysynth! 76 keys! 12 voice! weighted keys! built in sequencer! dual and split! 50 presets! 50 memories! MIDI! Alpha dial!



NEW TR505 - £225!

16 PCM voices, 48 preset, 48 program memories, 6 tracks, LCD display, MIDI



FANTASTIC NEW BOSS PEDALS

DIM-C - Dimension C
OD-2 - Turbo-overdrive
HF-2 - High band ranger

PHONE FOR DETAILS

Roland

NEW! ALPHA JUNO 2! TOUCH SENSITIVE POLYSYNTH



Touch sensitive polysynth. 64 programs, 64 presets. 16 character LCD display, new LSI chip gives complex waveforms. New Alpha dial system! 76 note keyboard

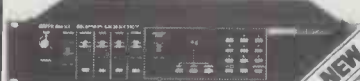
£799

JUNO 106 - £599!

Super New Special Low Price - World's best selling analog synth! MIDI - 128 memories! 61 keys. LFO, DCO, HPF, VCF, VCA, ENV and Chorus. 16 MIDI channel select buttons. Connects with any MIDI equipped synth or sequencer. Optional Recorder/Rhythm Composer/MIDI Thru Box.

ROLAND SRV2000 STEREO DIGITAL REVERB £1199

Incredible Sophistication Unbelievable Price. MIDI Controllable - Totally Programmable - 99s Delay! Look at these features: 24 memories! Parametric EQ control for room size FRG delay, Gate/Damping, reverb time. MIDI + 8 integrated display stereo output of up to 99 seconds! Many other features! **IN STOCK NOW**



MKS-7 SUPER QUARTET

Consists of 2-voice polyphonic Melody section, a 4-voice polyphonic Chord, a monophonic Bass and Rhythm. MIDI velocity messages increase or lower sound. Slider control adjusts sensibility. One hundred preset sounds for Melody section, 100 for Chord, 20 for Bass. 11 PCM digital sounds for Rhythm.



EM-101 SOUND PLUS

Compact 8-voice polyphonic MIDI sound module specially for use with MIDI-compatible Piano Plus electronic pianos. EM-101 offers 10 preset sounds - 8 Ensemble and 8 Solo sounds.

NEW! ROLAND RD100 DIGITAL PIANO!!



The most realistic and economical digital piano yet! Sounds incredible! 16 voices! 88 note keyboard! MIDI! Also available in rack mount version - MKS20! Call for further details!

10 BADDOW RD. CHELMSFORD ESSEX
0245 352490
0245 353878

85 ST. MARYS ST. SOUTHAMPTON HAMPSHIRE
0703 226798

104-6 ELM GROVE SOUTHSEA PORTSMOUTH HAMPSHIRE
0705 820595

FUTURE



Roland

AT LAST! FANTASTIC DIGITAL DRUMS FROM ROLAND! £1499

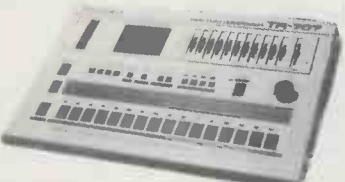
The system consists of the DDR-30 Digital Drums Module and two kinds of drum pads exclusively for the DDR-30 - the PD-10 Bass Drum Pad and PD-20 Snare Drum/Tom Pad. Enter the world of electronic music yet keep your drumming technique nuances - a realistic digital sound source, flexible sound modification, MIDI compatibility and superb playability.

Six drum voices - Bass, Snare and four Toms. Four different PCM digital present sounds provided for each voice. Preset edit over 16 parameters. Up to 8 kinds of modified preset sounds per voice memory store.



PAD-8 OCTOPAD £399

A ROLAND FIRST! TRIGGERS ANY MIDI DRUM MACHINE, SYNTH OR SEQUENCER
Eight touch sensitive pads, each independently assigned to midi note number, can control midi drum machines or synths. Four pad presets in memory plus curve, velocity and gate controls! Six external pads or triggers can also be used.



DIGITAL DRUM MACHINE *TR727 DIGITAL PERCUSSION MACHINE

The TR727 is identical to the TR707 except that it has 15 digital recorded latin sounds. 64 rhythm patterns - midi in LCD display. Fantastic with PAD-8! Bongos, Congas, timbale etc.

*In stock at all branches **£450**

ROLAND DRUM MACHINE SPECIALS

DR11 £125 • CR8000 £325 • CR5000 £249 • PC2 £49 • HC2 £49

Roland FANTASTIC BARGAINS!

SH101 & MGS1 Lowest ever combination price £199!	MGS1 HANDGRIP For SH101 Less than 1/2 price!! £15!	MC4B Originally over £2000 £399!	J5060 Sequencer Expand your JUNO60 £199!
G505 GUITAR GR300 BASE UNIT Incredible price £695!	MC202 Sequencer £175!	TR606 DRUMATIX Best selling Drum Machine £125!	MSQ100 MIDI Digital Sequencer £399!
KEYBOARD	CMU800 £98	Cube 40 Chorus £199	BOSS BARGAINS
JUNO105 POA	MC202 £48	Cube 60 Chorus £259	BX400 Mixer £115
SH101 + MGS1 £199	TE803 £175	PA & EFFECTS	BX800 Mixer £159
JUNO60 £599	TR707 £199	RV2000 Reverb POA	HC2 £49
JXP £599	TR727 £450	SDE1000 £399	NI1 Noise Gate £49
JPS £599	TR806 £450	SDE3000 £750	PC2 £79
MS60 £795	TR909 £399	Bass DC200 £250	

ROLAND MICRORACK

MPU101 Midi to CU £239	MPU102 Filter/Conv. £199	MPU104 Input Select £65	MPU105 Output Select £79	MPU401 Midi Interface £170
------------------------------	-------------------------------	-------------------------------	--------------------------------	----------------------------------

BOSS BARGAINS

BF2 Flanger £90	CE2 Chorus £83	CE3 Stereo Chorus £92	CS2 Compressor £72	DD2 Digital Delay £155	DF2 Distortion/Feedback £65	DM3 Analogue Delay £99	DS2 Digital Sampler £159	HC2 Hand Clap £49	PC2 Percussion Synth £49	HM2 Heavy Metal £55	OD2 Turbo Overdrive £50	DE200 Delay £249	CE300 Chorus £215
-----------------------	----------------------	-----------------------------	--------------------------	------------------------------	-----------------------------------	------------------------------	--------------------------------	-------------------------	--------------------------------	---------------------------	-------------------------------	------------------------	-------------------------

BOSS MICRORACK

BMRS Rack £39	RD10 Delay £145	RCL10 Comp Lim £107	RG10 Eq £107	RFB10 Flanger £107	RPM10 Phaser £107
---------------------	-----------------------	---------------------------	--------------------	--------------------------	-------------------------

FUTURE MUSIC PRICE PLEDGE! - PHONE ANY BRANCH FOR DETAILS!

FUTURE MUSIC PRICE PLEDGE! - PHONE ANY BRANCH FOR DETAILS!



YAMAHA

FANTASTIC NEW PRODUCTS!

£27 £499



...ar key version of the DX100. Its features and are nearly identical to the DX100 so you can use a MIDI on line controller keyboard.

DX21 DIGITAL SEQUENCE RECORDER £259



...gh-performance 2-track digital sequencer is perfect for recording anything you play on a Yamaha synthesizer or other MIDI keyboard, complete with response (velocity), pitch bend, modulation, and function parameters, 6000 to 8100 note memory, 7 character LED display, MIDI.

DXS2 MIDI CONTROL STATIONS £POA



PHONE FOR DETAILS

SPX90 DIGITAL MULTI EFFECTS PROCESSOR £599!



One of the most exciting new products to appear for years! Features include reverb, early reflection, delay, echo, modulation control, autopan, vibrato, reverb & gate, pitch change, freeze, ADR gate, compression, parametric EQ, flange, phase, MIDI, RC7 Remote controller available soon!

MEP4 MIDI EVENT PROCESSOR £POA



The MEP4 has a myriad of uses in MIDI recording. In the studio it can do such things as removing unwanted controller information from a sequencer track, delaying MIDI clock messages, or assisting in MIDI mixdown. 60 program memory, 16 character LCD display.

NEW YAMAHA SDS PEDAL RANGE - Superb Quality, Super Low Price!

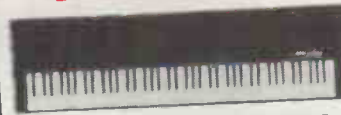


Compressor.....£39
Distortion.....£39
Overdrive.....£39
Chorus.....£59
Flanger.....£59
Graphic EQ.....£59



YAMAHA

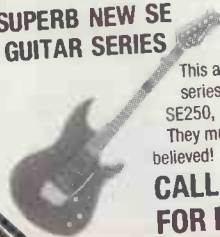
FANTASTIC NEW PRODUCTS!



PF70/PF80 ELECTRIC PIANOS
80 Note, 10 voices, LCD display, weighted action, programme editing, MIDI, tremolo chorus, 3 band eq, 16 programmable functions
PF70 £899 - PF80 £999



WXY10/5 WIRELESS DIVERSITY SYSTEMS £POA
SUPERB NEW SE GUITAR SERIES



This amazing new series includes SE350, SE250, SE350H, SE150! They must be seen to be believed!
CALL IN FOR DEMO!

MT1X MULTITRACK RECORDER/MIXER £449



The new 4 track cassette multitracker. Amazing specification, amazing price. Optional power pack available!

RX21L LATIN PERCUSSION MACHINE £249



RX21L as RX21 but with 16 PCM percussion voices, 50 programmable songs, cassette storage, MIDI, congas, tambourine, bongos, timbale, conga, cowbell, whistle, clavers

YAMAHA RANGE GUITARS
SE200.....£115 S9300.....£659
SG1300T.....£345 SG200.....£145
SG100S.....£289 Call in for demo!

MUSIC

44-6 PRESTON RD. BRIGHTON SUSSEX 0273 675983/4

202 NEW KINGS RD. FULHAM LONDON SW6 (opp. Putney Bridge Tube) 01-736 4771

173 KENTISH TOWN ROAD LONDON NW1 01-267 3786 01-485 1448



SUPPORTED CHEQUES

INSTANT CREDIT INTEREST FREE CREDIT

NOW OPEN



YAMAHA

SPECIAL OFFERS!!! SPECIAL OFFERS!!!

Digital Synth.....	£1999
7 Digital Reverb.....	£999
1 Digital Reverb.....	£POA
Digital Sequencer.....	£999
8 MIDI Remote.....	£POA
16 Tone Module.....	£299
7 Digital Sequencer.....	£499
7 FM Module.....	£625
11 Digital Drums.....	£179
5 Remote Keyboard.....	£POA
216 Tone Modules.....	



CX5 SOFTWARE AND ACCESSORIES

NEW

SFG05 TONE MODULE CARTRIDGE £99

DISC DRIVE INTERFACE £POA

SOFTWARE

M101 ROM - FM Music Composer.....	£36	CMW32 ROM - Keyboard Chord Progres.....	£45
M102 ROM - FM Voicing Program.....	£36	CMW33 ROM - Guitar Chord Master.....	£45
M103 ROM - DX7 Voicing Program.....	£36	GAR-01 ROM - Graphic Artist (Mouse Paint).....	£49
M104 ROM - FM Music Macro.....	£36	FVD-01 Cass. - FM Voice Data I - 96 voices.....	£19
M105 ROM - DX9 Voicing Program.....	£36	FVD-02 Cass. - FM Voice Data II - 96 voices.....	£19
A301 ROM - 4-track MIDI Recorder DC.....	£39	RDB-01 Cass. - RX15 Rhythm Data I.....	£19
A302 ROM - RX Editor DC.....	£39	RDB-02 Cass. - RX15 Rhythm Data II.....	£19
M305 ROM - DX21 Voicing Program DC.....	£39	RDB-03 Cass. - RX15 Rhythm Data III.....	£19
M501 ROM - FM Music Composer II DC.....	£39	UPA-01 Playcard Program Cartridge.....	£53
M502 ROM - FM Voicing Program II DC.....	£39	CR-01 Playcard Reader.....	£26
M504 ROM - FM Music Macro II DC.....	£39	UDC-01 Data Memory Cartridge.....	£65
MW31 ROM - Keyboard Chord Master.....	£45	CA-01 Cartridge Adaptor.....	£19

*DC = Disc compatible

NEW! SFG05 RX21 Tone Module Cartridge £99!!



YAMAHA

HI-TECH EXCELLENCE!!!



DX 21 £649
128 Pre-programmed voices, 32 performance memories, MIDI, 8 note polyphonic



DX100 £349
DX100 battery operated FM Synth mini keys 129 voice ROM



RX21 DRUM MACHINE £249



REV 7 £999

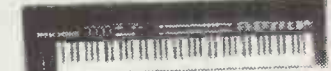
Yamaha break the price performance barrier with the brand new REV-7! 19 rack mount unit with remote, simulates any reverb characteristics! New LSI chips give up to 15 early reflections and 99.9 milliseconds of initial delay Parametric EQ, MIDI, 30 x presets, stereo, 60 user memories!!



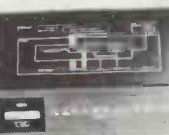
QX1 MEGA SEQUENCER £POA

Incredibly sophisticated state of the art data storage, the most powerful yet! 8 Polyphonic channels, built in disc drive with one megabyte storage (80,000 notes!) Extremely sophisticated editing. Best Yet!

KX88 MOTHER KEYBOARD



Yamaha invent the ultimate in MIDI remote keyboards! Light and portable yet full of features! 88 notes wood keys, beautiful feel! 19 different control effects, 192 parameter change possibilities. THE ULTIMATE.



TX7 FM TONE GENERATOR £499

QX7 DIGITAL SEQUENCE RECORDER £299

MT44D Multitrack Recording Systems PHONE



E. & O.E.

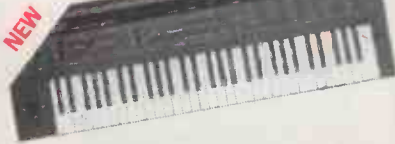
FUTURE MUSIC PRICE PLEDGE! - PHONE ANY BRANCH FOR DETAILS!

FUTURE MUSIC PRICE PLEDGE! - PHONE ANY BRANCH FOR DETAILS!

KORG®

DW8000 PROGRAMMABLE DIGITAL WAVEFORM SYNTHESIZER

Hit of the year! Korg get it right with features and price! 8 voice poly/ Korg's original digital waveform system/velocity sensing/built in digital relay/Echo/Flanging/Chorus MIDI/69 memories. Extremely easy to edit/Dual digital six part envelope generators!



DW6000 6 VOICE POLYSYNTH NEW LOW PRICE

Korgs 6 voice digital synth. now available at unbeatable competitive price! Features advanced digital sound quality with easy use processing and control/69 memories/Complete sound generation through harmonics synth. encoder in 2x256 ROM chips.



SQD-1 MIDI RECORDER & QUICK DISC

Korgs outright winner! At last an affordable storage system with the speed and efficiency of a built-in disk drive!! 2.8" quick disc/With 30000 note storage/Real or step time/Advanced editing/MIDI/Fast ACC/FII/Advanced editing/Punchout/Copy insert/Delete modes.



EX800 POLYPHONIX MIDI EXPANDER
Now at an incredible new low price of **£199.00** (while stocks last)



SPECIAL OFFER



POLY 800
Korgs best selling Synth.
Now at silly price of **£399**

SPECIAL OFFER

KORG®

POLY 800 Mk II



1000 note polyphonic sequencer, programmable digital delay, up to 1024 miliseconds, programmable Eq, 6 point envelopes

NEW EX8000 PROGRAMMABLE SYNTH MODULE EPOA

Expander version of the amazing DW8000. Many many features. Phone for details.

DVP-1 DIGITAL VOICE PROCESSOR

Not just a voice harmoniser but a state of the art digital programmer



£895

KORG PEDALS
Complete range in stock, call for details



10 BADDOW RD.
CHELMSFORD
ESSEX
0245 352490
0245 353878

85 ST. MARYS ST.
SOUTHAMPTON
HAMPSHIRE
0703 226798

104-6 ELM GROVE
SOUTHSEA
PORTSMOUTH
HAMPSHIRE
0705 820595

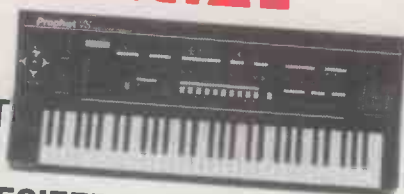
FUTURE

SEQUENTIAL

PROPHET 2000 OPEN EVENING at London Shops! Phone for details

PROPHET VS DIGITAL VECTOR SYNTHESIZER £1895

The Prophet VS digital vector synthesizer features 8 voices with each voice composed of 4 digital oscillators. 200 programs via ROM and RAM cartridges. MIDI. Up to 128 waveforms. Velocity and pressure sensitive 5 octave keyboard with programmable split. Many innovative features - call in for details.



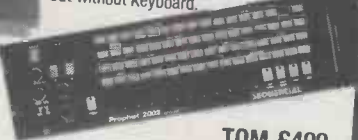
PROPHET 2000 DIGITAL SAMPLING KEYBOARD £1995



Up to 16 splits/touch sensitive weighted keyboard formats own disc/6 second sampling at 21KHz - 10 secs at 15KHz/Extremely sophisticated

PROPHET 2002 DIGITAL SAMPLING MODULE £1795

Rack mount version of the Prophet 2000. Same specification but without keyboard.

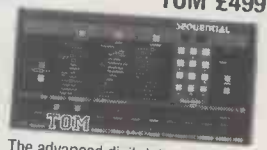


MULTITRAK £695



Sequential's new advanced polysynth, now at all-time low price. Touch sensitive, powerful on-board sequencer, multi-timbral, MIDI.

TOM £499



The advanced digital drum machine now at this ridiculous price

AKAI

NEW

S900 MIDI RACK SAMPLER £1595

Eight voice polyphonic digital sampler. Using 12 bit linear technology, the S900 comes complete with a 3.5 inch disc drive fitting into a 19 inch 3U rack mount. 8 voice polyphonic or 8 individual monophonic voices over 6 octave range. Call for demo.



Now Available - COMPLETE SOUND SAMPLING SYSTEM! S612 MIDI DIGITAL SAMPLER & MD280 QUICK DISCS

Includes complete set of 10 pre-recorded discs

INCREDIBLE NEW LOW PRICE!!!

£949!

AKAI LIBRARY DISK SETS 20 SOUNDS IN EACH SET!!

SL201 Orchestra sounds.....	£49.90	SL202 Percussive Sounds.....	£59.90
SL203 Chorus + Ensemble.....	£49.90	SL204 Rhythm Section.....	£49.90
SL205 Special Effects.....	£49.90	SL206 Sounds of Japan.....	£59.90
BL100 Blank disk set.....	£29.90		

ALL IN STOCK NOW!!



AKAI MIDI RACK EFFECTS
ME100 MIDI digital delay
ME15F MIDI dynamic controller
ME20A MIDI sequence arpeggiator

AX80 MIDI - TOUCH SENSITIVE POLYSYNTH
All new design and sounds at a crazy price! A wealth of features. Beautiful cosmetics, easy to use. 61 keys/8 voice poly/Fluorescent display/32 preset sounds/64 user programmes/velocity sensitive MIDI CALL FOR INCREDIBLE PRICE

AKAI COMPACT DISC PLAYER IN STOCK £199!!

FUTURE MUSIC PRICE PLEDGE! - PHONE ANY BRANCH FOR DETAILS!

FUTURE MUSIC PRICE PLEDGE! - PHONE ANY BRANCH FOR DETAILS!

GREENGATE DS:3DX

30seconds 20kHz
£1995

...second sampling at 20 kHz. BREADWINNER.... Yes, THIRTY!
Buying a keyboard sampler/composer? Ask if the computer is included. Our's is. For £1995

SIMMONS

MTM MIDI INTERFACE £595

Simmons new super sophisticated MTM now available and is much more than just a MIDI interface. It can vastly improve the dynamics of an SDS7 and give it MIDI capacity for example, or can be used as a pad or acoustic drum trigger, with MIDI out. Incredibly versatile, many other features.

£1199 SDS 9

More than a match for the acoustic kit because it is designed to give you everything the acoustic has to offer - and much more besides - 20 user programmable kits, new pads, 3 snare sounds, rimshot, all digital sounds, midi.

NEW ALESIS

THE FANTASTIC NEW MIDIVERB - £399!!

Completely digital, the Midiverb offers a powerful range of 63 room programs in full stereo. Everything from small rooms to full halls. Decay times from 0.2 to 20 seconds as well as gated and reversed programs for special effects, plus MIDI.

In stock at all Future Music branches

MUSIC

44-6 PRESTON RD. BRIGHTON SUSSEX 0273 675983/4

202 NEW KINGS RD. FULHAM LONDON SW6 (opp. Putney Bridge Tube) 01-736 4771

173 KENTISH TOWN ROAD LONDON NW1 01-267 3786 01-485 1448

Access BARCLAYCARD VISA

SUPPORTED CHEQUES INSTANT CREDIT INTEREST FREE CREDIT

CASIO. COMING SOON!!

FANTASTIC NEW PRODUCTS!!

RX1 - NEW DIGITAL SAMPLING RHYTHM COMPOSER

£395

Sampling can be performed either using an external microphone or LINE IN connection. 0.8 second sampling period for a single sample or divide among maximum of 4 different samples. 12 built-in sounds are produced by a PCM sound generator. Total of 10 output terminals are equipped for individual sound control.

SK-1 DIGITAL SAMPLING KEYBOARD

CZ3000 POLYSYNTH IN STOCK NOW!!!

8-bit PCM • Sampling rate: 9.3 kHz (max.) • Sampling period: 1.4 sec. • One-key play • 4-note polyphonic • Toy Symphony preset as demonstration • Vibrato and portamento effects • 13 types of chords including CASIO CHORD • Built-in speaker

£89.00

Fender

THE SOUND THAT CREATES LEGENDS NOW AT ALL FUTURE MUSIC BRANCHES WITH A GREAT NEW 1986 LINE UP!!

Standard Strat.....£395	Squier Tele.....£239
Squier Popular Strat.....£249	Katana.....£529
'62 Vintage Tele.....£389	Squier P. bass.....£279
Contemporary Strat.....£475	Squier Jazz bass.....£319
Telecaster with humbuckers and trem.....£429	Contemporary P.J. bass.....£399
	Squier Katana bass.....£289

CARLSBRO

AMPLIFICATION

Full range of guitar, bass and keyboard combos plus PA equipment. Everything from practice amps to stage PA rigs. All in stock at all Future Music Branches

NOW OPEN

SESSION AMPLIFICATION

Best range at best prices always stocked at Future Music e.g.

Rocket 30.....£175
Sessionette 75, 1x12.....£175
Sessionette 75, 2x10.....£275

Call for further details

L.C. electronic

Pedals for the perfectionist

INCREDIBLE QUALITY!! SUPER LOW NOISE!!

Chorus/flanger.....£157.00
Dual Parametric Eq.....£84.00
Sustain Eq.....£94.50
TCX11 Phasor.....£126.00
Booster/Distort.....£94.50

FUTURE MUSIC PRICE PLEDGE! - PHONE ANY BRANCH FOR DETAILS!

FUTURE MUSIC PRICE PLEDGE! - PHONE ANY BRANCH FOR DETAILS!

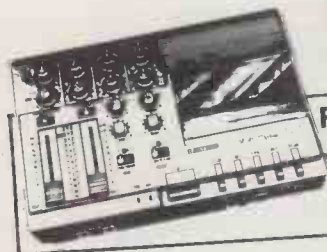
NEW

FOSTEX 260 MULTITRACKER

- ★ 2 Auto Locate Memories
 - ★ Dual Parametric Sweep Eq
 - ★ 2 Auxiliary inputs per channel plus 2 line inputs
 - ★ Switchable Dolby C Noise Reduction
 - ★ LCD Counter
 - ★ A host of other features
- £699!**

Fostex

Accessit 'Exciter' now in stock plus complete range



FOSTEX X15 NEW LOW PRICE! £245

* MN15 Compressor/Mixer **£39** *
Complete Accessit range in stock.

FOSTEX B16 16 TRACK SYSTEM PACKAGE B16 + SECK 18/8/2

Join the personal multitrack revolution with Future Music 16 Track package deals! The world's most successful 16 track recorder on 1/2" tape. Call for up to date current deals on the Seck package and 8 other B16 mixer packages.



Fostex

A80 8 TRACK

- Look at these incredible new features!!
- Redesigned cosmetics with bargraph meters
 - SMPTE timecode track
 - Dolby C
 - Improved signal to noise ratio + 20dB
 - Record on all 8 tracks live
 - MIDI interface for controlling synths on



450 MULTITRACK RECORDING MIXER

- Completely redesigned cosmetics and routing system
- Bar graph integral meters
- Pre and post 3 band parametric eq
- In line monitoring
- Input solo
- 2 aux sends
- Phantom powering



4050 AUTOLOCATOR £995

For use with A80, A20 and B16 models!!! Incredible features!! ● Autolocator has digital LED display and is totally programmable (minutes, seconds, bars, notes!!) Tempo change in realtime ● SMOTE time code

4030 SYNCHRONISER

● MIDI ● Computer interface synchroniser will lock AVD10 to audio or audio to video! Optional 4035 controller!! 4030 Synchroniser 4035 Controller **£1695**
All new and unbeatable value!



10 BADDOW RD. CHELMSFORD ESSEX
0245 352490
0245 353878

85 ST. MARYS ST. SOUTHAMPTON HAMPSHIRE
0703 226798

104-6 ELM GROVE SOUTHSEA PORTSMOUTH HAMPSHIRE
0705 820595

FUTURE

WS-A70E

The WS-A70E represents the end-result of intensive research into the nature of the human hearing system. It is compact for easy handling, but at the same time features a high power handling capacity, and wide and even sound dispersion allowing a wide projection angle.

The WS-A70E delivers superior tonal quality and a clear vocal sound in a wide variety of applications—from the professional studio control room to sophisticated sound reinforcement systems.

WS-A200E

Compact High - Power | Speaker System
With this speaker system, all the power and reliability of a big P.A. system has been packed into a compact single unit, backed up by extensive R&D and field testing. The WS-A200E provides high quality sound in a flexible speaker capable of performing in a variety of situations. An accurate constant directivity creates a real P.A. presence. Aside from its superlative tonal qualities and performance, the WS-A200E is sturdy and durable in construction. It is perfect for any type of show on the road in diversified performing situations, from indoor to outdoor. Maximum Sound Pressure Level: 129dB, Equivalent to 1.2kW Input (measured on the EIA RS-426-A standard)



WS-A10

The WS-A10 is a bass reflex micro sound monitor with performance comparable to much larger units. The single, 12cm full vange speaker has a frequency response from 50Hz to 20,000Hz, and a power handling capacity of 160W (Continuous program), making it perfect for a wide range of applications.



RAMSA

for professionals

Incredibly high-powered monitors at very affordable prices!! Now in stock at all Future Music branches.



SHURE

The Sound of the Professionals
Just a few of the world's finest microphones!
All in stock at every Future Music branch and at very competitive prices.

SM 10 A, SM 12 A, SM 14 A | Dynamic

Designed to solve many problems of drummers, keyboardists and guitarists who sing as they play: staying "on mic" as they move around while playing; keeping vocals isolated from instruments;

being unable to hear vocal monitor; drummers hitting the boom stand with the sticks. The dynamic microphone capsule is noise-cancelling. Response is designed for close-talking, with strong, professional sound quality.



SM 90/91 Condenser

Model SM90 is a "pressure zone" omnidirectional unit.

PE 66 | Dynamic

Shure finest PE Instrumental microphone. Really comes through when close miking is important.

SM 58 Dynamic

The world-standard professional stage microphone with the distinctive Shure upper mid-range presence peak for an intelligible, lively sound.

PROLOGUE by SHURE

Prologue range priced from just £23.00 brings Shure well within your reach. Because they've been designed by Shure, you can be certain that they combine the highest standards of performance, durability and reliability.



PRO12

PRO10

PRO14

FUTURE MUSIC PRICE PLEDGE! - PHONE ANY BRANCH FOR DETAILS!

FUTURE MUSIC PRICE PLEDGE! - PHONE ANY BRANCH FOR DETAILS!

FUTURE MUSIC

SUPER SALE! SUPER SALE!

ALL NEW, EX DEMO OR SECONDHAND C = Chelmsford Shop F = Fulham P = Portsmouth S = Southampton B = Brighton K = Kentish Town A = All Shops

<p>SYNTHESIZERS</p> <p>ew Roland Juno 1 £499 A ew Roland Juno 106 £599 A ew Roland JX8P £399 A ew Roland SH101 £199 A ew Roland Juno 2 £799 A ew Roland JP6 £999 A ew Roland MKB1000 £599 A ew Yamaha MK300 £699 A ew Yamaha DX27 £POA A ew Yamaha DX5 £1199 A ew Yamaha DX100 £349 A ew Yamaha TX7 £499 A ew Yamaha TX812 £POA A ew Yamaha TX818 £POA A ew Korg DW8000 £399 A ew Korg DW8000 £559 A ew Korg Poly 800 £399 A ew Korg Poly 800 II £499 A ew Korg EX800 £199 A ew JVC KB303 £299 A ew Casio CX201 £199 A ew Casio CZ3000 £POA A ew Casio CZ5000 £1999 A ew Sequential Pro 2000 £599 A ew Sequential Multitrak SH Korg MS10 Mono £599 C SH Roland SH2000 £149 C SH Arr Omni £Offal C SH Korg Micro Preset £449 C SH Juno 106 £150 S SH Moog Rogue £175 S SH SH101 MGS1 £499 S SH Yamaha CS70M £299 A SH Roland Planet Mod £450 F SH Korg Poly Six £1750 F SH Yamaha DX7 £399 F ew Oberheim DX £399 F</p> <p>MIDI KEYBOARD CONTROLLERS</p> <p>New Roland MKB1000 £799 A ew Roland MK3300 £899 A ew Roland AXIS300 £POA A</p> <p>New Yamaha KX5 £179 A ew Yamaha KX8B £1199 A ew Korg RK100 £POA A</p> <p>MIDI SAMPLERS</p> <p>ew Sequential Pro 2000 £1999 A ew Akai Complete SB12 £899 A ew Korg SD2000 £649 A ew Delta Sample Mods From £79 A ew Boss DSD2 £169 A ew Yamaha VS8100 £295 A ew Roland SDE2000 + Keyboard (Ex Demo) £399 C</p> <p>SEQUENCERS</p> <p>New Roland MC500 £799 A ew Roland MSQ700 £POA A ew Roland MSQ100 £295 A ew Roland MSQ202 £199 A ew Roland CSQ1600 £195 A ew Roland MC48 £395 A ew Roland +OP8M £195 A ew Roland MP1401 £199 A ew Oberheim DSX £400 F ew Yamaha DX1 £POA A ew Yamaha DX7 £299 A ew Korg SD01 £349 A SH Roland CSQ100 £75 C</p> <p>ELECTRIC PIANOS & HOME KEYBOARDS</p> <p>New Roland EP50 £499 A ew Roland EP100 £549 A ew Roland HP300 £POA A ew Roland HP400 £POA A ew Roland HP450 £1199 A ew Yamaha PF70 £899 A ew Yamaha PF80 £999 A ew Yamaha PR80 £1999 A ew Yamaha CP70 £POA A ew Yamaha CP80M £POA A</p>	<p>New Yamaha CP70M £POA A ew Yamaha CP80M £POA A SH Hohner Clavinet £399 C SH Roland EP10 £149 C SH Crumar £125 C SH Rhodes 88 with Amp £Offal C SH Wuritzer £199 SP SH Roland HP300 £749 S SH Fender Rhodes £200 F</p> <p>DRUM MACHINES</p> <p>New Roland TR707 £450 A ew Roland TR707 £399 A ew Roland TR909 £399 C ew Roland TR505 £399 C ew Roland CR5000 £199 C ew Roland CR8000 £399 A ew Yamaha RX11 £825 A ew Yamaha RX15 £399 A ew Yamaha RX21 £249 A ew Sequential Tom £499 A ew Sequential Drumulator £199 A ew Boss DR110 £125 A ew Amdek RMK100 £49 C ew Korg DDM110 £159 A ew Korg DDM220 £159 A ew Korg KPR77 £POA A</p> <p>ELECTRONIC KITS</p> <p>New Roland DR30 Kit £1199 A ew Roland Pad 8 £399 A ew Simmons SDS7 £1199 A ew Simmons SDS5 £499 A ew Simmons SDS6 £599 A ew Simmons Sequencer SDS6 £399 A ew Ultimate UPI £799 A ew Ultimate K2X £499 A ew Pearl Drum X £699 A ew Simmons SDS1 £199 A ew Simmons MTM £399 A ew Simmons MTM £250 S SH Ultimate K2X Kit £250 S</p>	<p>ACOUSTIC DRUMS</p> <p>New Sonor Hi Tech 9 Drums £1999 C ew Pearl Export Maple £POA CS ew Fender Elite Tele Inc. Case £699 C ew Ana Pro II ZZ Deluxe Inc. Case £299 C ew Hohner Steinbergers' From £199 C ew Tokai TS150 £199 C ew Tokai TTE60 £225 C ew Tokai TLC60 Inc. Case £249 C ew New Kay Flying V £149 C ew Washburn A10 SH £150 C ew Washburn A5 New £199 C ew Ibanez Roadster II SH £195 C ew Ana 'Wildcat' £169 C ew Profile 'Teal' Copy £115 C</p> <p>ELECTRIC GUITARS</p> <p>New Fender Contemporary Range A ew Tokai Complete Range In Stock A ew Yamaha Complete Range In Stock A ew Ana Complete Range In Stock A ew Ibanez Complete Range In Stock A SH Gibson SG £225 SP SH Hondo 335 Deluxe Semi Acous. £149 S SH Ibanez Cimar £75 S ew Profile Strat Copy £99 S ew Hondo Formula 1 £99 S ew Columbia Crest Semi Acous. £99 S ew Westone Concord 1 £149 S ew Westone Prestige 227 £249 SP ew Yamaha BB300 £169 SP ew Squier Bass £179 SP ew Hohner Super Headlines Gtrs & Basses in Stock SP ew Westone Session II £249 S ew Fender EL Rio £229 S ew Ibanez Artist Classic £245 S ew Westone Concord 1, Red or Black £99 SP SH Gibson Flying V £499 C ew Yamaha SG3000 Inc. Case £495 C ew Yamaha SG2000 Inc. Case £359 C ew Yamaha SG1200 £399 C ew Yamaha SA400 Inc. Case £345 C</p>	<p>ew Yamaha S1550 £249 C ew Yamaha SG200 £159 C ew Yamaha SG1300T £429 C ew Fender Elite Tele Inc. Case £299 C ew Ana Pro II ZZ Deluxe Inc. Case £199 C ew Tokai TS150 £199 C ew Tokai TTE60 £225 C ew Tokai TLC60 Inc. Case £249 C ew New Kay Flying V £149 C ew Washburn A10 SH £150 C ew Washburn A5 New £199 C ew Ibanez Roadster II SH £195 C ew Ana 'Wildcat' £169 C ew Profile 'Teal' Copy £115 C</p> <p>BASSES</p> <p>SH Westone Concord £125 C ew Martin Bass £399 C ew Yamaha BB300 £199 C ew Yamaha BB400's £199 C ew Yamaha BB1100 Active £299 C ew Yamaha BBV1s Plus Case £295 C ew Yamaha BB1200 Shop Soled £249 C ew Ibanez Roadster Basses From £199 C ew Quest Atak £115 C ew Hohner Steinbergers From £199 C ew Kramer Semi-Fretless £149 C ew Yamaha BX1 Headlines In Case £379 C</p> <p>ACOUSTICS</p> <p>New Yamaha Acoustics/Electrics From £159 C ew Yamaha Acoustics From £99 C ew Ovalion Celebrity Acoustic £189 C ew Ovalion Celebrity Electric £249 C</p> <p>AMPS & COMBOS</p> <p>New Custom Sound Cub 30 £99 S ew Custom Sound Cub 100 £145 S ew H/H Bass Amp 100 Top £225 S ew Yamaha XJ50B Bass Amp £175 S ew H/H Studio Fly Lead £125 S ew Fender Sidekick 50 Bass £165 SP ew Session 'Rockette' 30 £159 C</p> <p>New Session 75.2 x 10 £275 C ew Session 1 x 15 Bass £299 C ew Carlsbro 150W Lead 2 x 12 £295 C ew Carlsbro Hornet Lead £165 C ew Carlsbro Stingray 150 Bass £349 C ew Carlsbro Cobra 90 Bass £149 C ew Carlsbro Hornet 45 Bass £119 C ew Fender Sidekick 30 Bass £149 C ew Fender Sidekick 50 Bass £225 C SH Peavey Studio Pro £399 C SH H/H VS Musician 100W Top £199 C ew Fender Yale Reverb £199 C ew Fender Studio Lead £259 C ew Kudos 666 New Pr. £349 C ew Roland Cube 60 Bass £199 C ew Roland B01 80 Shop Soled £249 C ew Project Twin Disc Deck £299 C SH Roland PA150 £250 F</p> <p>CABS</p> <p>ew Wem Song Bird 300W £199 the pair S ew Ohm V.P.101 Compact Cabs £195 the pair S ew Carlsbro 1 x 21 Horn £199 the pair S ew Ohm 2 x 12 Dual Concentrics £199 the pair S ew Kustom 15 Electrolux Cabs £199 the pair C SH H/H H.F. Horn £55 C SH H/H 4 x 12 Cab £195 C ew Kustom 1 x 15 Cab (Shop Soled) £POA C ew Kustom Bass Bms (Shop Soled) £399 C SH H/H 2 x 12 Cab £100 F</p> <p>COMPUTER MUSIC</p> <p>New Yamaha CX5M From £299 C ew BBCB + Opus Disc Drive + EMR £499 C ew Commodore 64 + Software £199 C ew Roland MC48 + OP8M £399 C ew Greengate Apple System £ C ew Roland DXY Plotters £199 C ew Commodore 64 + Disc Drive + CMU900 + Software £299 C</p>
--	---	---	---

MUSIC

44-6 PRESTON RD. BRIGHTON SUSSEX 0703 675983
202 NEW KINGS RD. FULHAM LONDON SW6 (opp. Putney Bridge Tube) 01-736 4771
173 KENTISH TOWN ROAD LONDON NW1 01-267 3786 01-485 1448

At Large BARCLAYCARD VISA
SUPPORTED CHEQUES INSTANT CREDIT
NOW OPEN NOW OPEN

HOME RECORDING & PERSONAL MULTITRACK

• TANNAY • JBL • ACCESSIT • AKG • DRAWMER • BEYER • FOSTEX

RECORDERS

Fostex A80
Fostex A2
Fostex B16
Fostex X15
Fostex 250
Yamaha MT44 D
Revox B77
Cutec 4 Track
Akai MG1212
Fostex Autolocator
Fostex Synchroniser
New Yamaha CMX

NOISE GATES

Boss NFI
Accessit
Drawmer

MIXERS

Dynamix 16/8/2
Dynamix 24/8/2
Seck 18/8/2
Ram 10
Boss BX400
Boss BX600
Boss BX800
Roland RM1200
Roland RM1600
Boss KM60
Yamaha 602
Ramsa
AHB CH24
AHB 1682

NOISE GATES

Fostex 450
Canary 6/2
Canary 8/10
Canary 16/8
Promark 10/8/2
Fostex 350
Aces 10/8/2
Soundcraft

MICROPHONES

Shure Prologue 10
Shure Prologue 12
Shure Prologue 14
Nueman U87
Nueman U47
Nueman U69
AKG 231
AKG D80
Shure SM58
Shure PE66
Audio Technica Pro 1
Audio Technica Pro 2
Complete Range

GRAPHIC EQ

Fostex Dual 10 band
Roland SEQ331 31 band
Roland SEQ315 2 x 15 band

Yamaha Q2031 2 x 31 band
Yamaha CO1031 31 band
Boss Micro Rack Graphic eq

SPRING REVERB & TAPE ECHO

Boss RX100
Roland R100
Accessit Stereo Rev
Fostex 3180
Roland SRE555

Roland RE701
Roland RE201
Roland RE301
Great British Spring

COMPRESSOR/LIMITERS

Drawmer Compressor Limiter
Fostex 3070 Comp/WM
Yamaha CG2020
Accessit Compressor
Boss Micro Rack Comp/Lim/Exp/Gate

DIGITAL DELAY

Roland SDE 2500 Midi
Roland SDE 1000
Roland SDE 2000
Roland SDE 3000
Boss DE200
Boss Micro Delay
Boss DD2
Korg SDD2000

DIGITAL REVERB

Roland SRV2000
Yamaha Rev 7

Yamaha Rev 1
Yamaha R1000
Alesis
MXR
Lexicon PCM 60/100

MONITORS

Casio AS-10
Tannoy Stratfords
Tannoy Oxfords
Yamaha NS10
Yamaha S10X
Yamaha S20X
Ramsa WS-A10
Ramsa WS-A70
Ramsa WS-A200
Boss MN15
Boss MS100

Fostex SP11
Korg MM25
Carlsbro

TAPE SYNC

Roland CM802
Roland SBV80
Fostex Synchroniser
Yamaha
Mona KMS30

FUTURE MUSIC PRICE PLEDGE! - PHONE ANY BRANCH FOR DETAILS!

Sequential Prophet VS Polysynth



At this early stage, there are a lot of unanswered questions surrounding the Prophet VS. Will its new sound-generating system – Vector Synthesis – revolutionise the synthesiser world? Will it make musicians turn away from sampling and go back to *creating* sound electronically, instead of just manipulating it that way? Will it render the DX7 obsolete?

Frankly, I haven't got a clue. What follows is not a detailed rundown, but a sneak preview gleaned from a couple of demonstrations and a few hours' fiddling at Sequential's factory in San José.

What the Californians have set out to do with the VS is to use the clarity and stability of digital electronics, implemented in a way synth programmers will understand. This is nothing new, as a number of other design teams have looked at Yamaha's FM synthesis technique and asked themselves: 'How can we make this more accessible?' Trouble is, most of their answers have consisted of simplifying circuitry, making it easier to use than FM but, at the same time, quite a bit less versatile.

The VS is the first synth that really grabs the programming bull by the horns, offering a complex voice configuration you can use – quickly, easily and enjoyably.

There are four digital oscillators routed through a classic four-pole filter, followed by a wide range of envelope controls. More unusually (and this is where the fun starts), each oscillator can use one of 160 different waveforms, 128 of which are preset and 32 user-programmable. Creation of new waveforms is achieved by a staggeringly simple process which should go down a storm with video game junkies: you just grasp the onboard joystick firmly in one hand, select four waveforms as a starting point, and create a brand new waveform using the joystick to create a unique four-way mix. This is waveform creation in real time, faster than FM by about the same magnitude as a Ferrari is faster than an Austin A40 (I should know, I've got an A40).

Following on from this, everything else in the VS' sound-changing department is

closely related to traditional analogue programming techniques. The four 12-bit oscillators can be mixed using 12-parameter envelopes or via the joystick, giving you an extra real-time control to waggle in addition to the bend and mod wheels. Five-stage envelopes also control filtering and loudness, with the fascinating addition of looping and repeat functions – useful results of Sequential's excursion into sampling with the Prophet 2000 and 2002.

Both sound patches and additional user-programmed waveforms can be stored on cartridge, and these are instantly available and editable during performance.

But the success of Sequential's analogue/digital mixture only becomes fully apparent when you listen to the noises the VS makes. The contrast between synthetic strings (as full and as warm as they ever were on the Prophet 5) and the precise cutting edge of new percussive sounds is as stark as any in synth technology, and you have to pinch yourself before you believe that both are coming from the same machine.

Sequential have again excelled themselves on the MIDI front, providing a selection of interfacing facilities even more versatile than that of the Prophet 2000. The VS is multi-timbral, of course, and the prospect of using it in conjunction with a sampler and a MIDI sequencer is mouth-watering.

We'll be giving the VS a fuller appraisal just as soon as we get our hands on one. Only then will we discover if it really *is* such a cinch to work with, if the range of preset sounds really *does* contain voices of a uniformly high standard, and if it really *will* make prospective DX7 purchasers think long and hard before committing themselves.

It's due to sell in the UK for about the same money as the Prophet 2000 (under two grand, in other words), and from the evidence we've seen so far, Sequential should have little trouble selling it.

■ Paul Wiffen

Boss RSD10 Sampling Delay



Want the low-down on one of the cheapest pitch-tracking samplers currently available? Read on. The Boss RSD10 is the same physical size as the other Micro Rack modules (studio outboard units all), and derives its juice from an external power supply.

It's based round a digital delay with a 7kHz frequency response, and a delay time that can be anywhere between two milliseconds and two seconds. There are no modulation facilities, but there is a Feedback option for lovers of repeat echoes. Sound quality is higher than any semi-pro analogue delay, even if the limited bandwidth does lead to a certain lack of brightness.

The sampler section operates unconventionally, in that it actually tracks the pitch of the controlling keyboard's audio output, changing the pitch of the stored sound by speeding it up and slowing it down. Maximum sample length at the middle of the pitch range is two seconds and, though the manual claims the machine tracks over two octaves, it worked OK over a range of more like four.

You may have to switch octaves on your synth until you find the sampler's operating range, after which you connect the keyboard gate output to the sampler's trigger input, and that's that. The RSD10 requires a clean waveform to work on, so it's best to set up your synth to give a square wave output, with a fast attack and a couple of seconds of release time. Set the low-pass filter to the highest cutoff frequency, and apply no resonance.

There are two ways of loading a sound into the Boss. In Mode A, a signal at the input starts the recording process, after which both the sampling duration and the replay pitch depend on the last note played on the keyboard; it makes sense, therefore, to select a note on the keyboard that corresponds to the pitch of the sound you're about to sample. Mode B works in much the same way, except that the sampling process is initiated by pressing a key on the synth.

Any sampled data is lost when the RSD10 is switched off, but you can record your sounds onto tape and resample them later. Using a stereo recorder, you can also record the keyboard pitch at which the note was

sampled and use this to re-record the sound at the correct pitch.

Once you've got a sample you're happy with, pressing a key on the synth causes it to replay all the way through unless you hit another key before the sound ends, in which case it starts again from the beginning. If the sound is too long, you can use the Trim control to shorten it; this fades the sound rapidly rather than just cutting it off, so there's no click at the end. There's no facility for trimming the beginning of a sample, though.

Should you want to layer a sound on top of another, you simply advance the Feedback control, though this adjustment requires a bit of experimentation.

One advantage of the pitch-tracking system is that it works on synths that don't conform to the 1V/octave standard, like old Yamaha and Korg synths with linear oscillators (though if yours is a Korg or an old Moog, you'll need a trigger converter before you can use it), or a modern polysynth, providing it has a gate or trigger output and that you play it monophonically. And any portamento or pitchbend you apply to the controlling synth translates accurately to the sampled sound.

Quality-wise, the RSD10 is no Synclavier, but quite serviceable nonetheless. Samples replayed more than a few semitones below their original pitch do show signs of quantisation and aliasing – though for some people, that's all part of the charm of sampling.

Finally, with the Boss operating as a delay, the delay time can still be controlled by the synth pitch, so you can create quasi-flanging effects from the keyboard, or even use the synth's LFO as a modulation oscillator for 'proper' chorus and flanging.

The Boss' limited bandwidth prevents it being worthwhile purely as a DDL. But its sampler section is competent enough in terms of range, quality, accuracy and flexibility to lift the machine well above 'interesting toy' status. ■

Paul White

Price RRP £200 including VAT
More from Roland UK, Great West Trading
Estate, 983 Great West Road, Brentford,
Middx. ☎ 01-568 4578



TELECOMMS

A DIVISION OF MIKE DEVEREUX MUSIC LTD.

THE UK'S FASTEST MAIL ORDER SERVICE

SYNTHESIZER AND KEYBOARD BARGAINS

SEQ. CIRCUITS Six Tracks	£499
SEQ. CIRCUITS 64 Interface	£175
ROLAND Juno 106. (special price)	£575
ROLAND RS09 String Synth	£199
ROLAND ALPHA JUNO New	£575
KORG POLY 800	£399
KORG EX800 Expander Low Price	£199
KORG DW6000 (6 Voice) Synth	£559
KORG DW8000 (8 Voice) Synth	£899
KORG POLY 800 MkII (New)	£469
YAMAHA DX7 FM Synth	£1199
YAMAHA DX21 Synth	£349
YAMAHA DX2100 (129 Voice FM)	£599
CASIO CZ5000	£749
CASIO CZ1000...Lowest UK Price	£399
CASIO CZ101...Lowest UK Price	£295
CASIO CZ-1 Sequencer	£199
CASIO MT800...Lowest UK Price	£199
CASIO CK 500	£249

TASCAM MAIN DEALER

TASCAM Porta 1 (Mini 4 Track)	£399
TASCAM M244 4 Tr. Portastudio	£699
TASCAM M246 4 Tr. R/R Portastudio	£899
TASCAM M388 8 Tr. R/R Portastudio	£2499
TASCAM 38 8 Tr. (1/2") Reel to Reel	£1999
TASCAM 32 Half Track R to R	£899
TASCAM 216 16 into 4 into 2 mixing desk	£899
TASCAM 216 16 into 4 into 2 mixing desk	£899
SPECIAL OFFER Free pair of Teac HP308 headphones with every 4 Track Recorder purchased.	

QUALITY MONITORS

JAMO 70 Compact 70W (Pair)	£69.90
JAMO 90 Compact 90W (Pair)	£99.90
JAMO 366 Monitor 300W (Pair)	£299
JAMO 566 Monitor 500W (Pair)	£499
KUDOS 653 PA (Pair) s/h	£295
KUDOS 653 PA (Pair) New	£465
PEAVEY TRIFLEX PA System W/stands	£250

MARSHALL AMPLIFICATION NEW LOW PRICES

MARSHALL 2203 100W Master Vol Amp	£295
MARSHALL 2204 50W Master Vol Amp	£150
MARSHALL 3210 50W Split CH. Trans Amp	£195
MARSHALL Super Bass Amp 100W. (used)	£195
MARSHALL Super Bass Amp 100W MkII (used)	£199
MARSHALL 1960B 4x12 300W Lead Cab	£199
MARSHALL 1960A 4x12 300W Lead Angle Cab	£79
MARSHALL 5005 12W 1x10 M/V Combo	£99
MARSHALL 5002 20W 1x10 M/V Combo	£225
MARSHALL 5210 50W 1x12 Split CH/Reverb Combo	£275
MARSHALL 4010 50W 1x12 M/Vol Valve Combo	£299
MARSHALL 4210 50W 1x12 Split/Reverb V. Combo	£87
MARSHALL 5501 12W 1x10 Bass Combo	£99
MARSHALL 5502 20W 1x10 Bass Combo	£139
MARSHALL 5503 30W 1x12 Bass Combo	£87
MARSHALL 5301 12W 1x10 Keyboard Combo	£99
MARSHALL 5302 20W 1x10 Keyboard Combo	£139
MARSHALL 5010 30W 1x12 Lead Combo	

TUNERS

BOSS TU60	£35
BOSS TU12	£49.99
BOSS TU12H Chromatic tuner	£45
BOSS TU120	£65
BOSS TU120	£30
KORG GT60x	£34
KORG Chord Comp. Keyboards and Guitars	£60
KORG DT-1 7 Oct Tuner	£29.95

HIGH QUALITY PA

BOSE 302 Bass bins. (pair)	£1195
BOSE 802 series 11 speakers. (pair)	£799
BOSE 301 Music Monitors (Pair)	£269
BOSE 205 Music Monitors (Pair)	£198
BOSE 201 75W Music Monitor (Pair)	£169
ACES 300W Stereo Power Amp (Rack Mntg)	£299

PEDALS AND EFFECTS

BOSS BF2 Flanger	£79
BOSS ODI Overdrive	£49
BOSS HM2 Heavy Metal	£49
BOSS CE2 Chorus	£75
BOSS CE3 Stereo Chorus	£75
BOSS DS1 Distortion	£51
BOSS SD1 Super Overdrive	£51
BOSS GE7 Graphic	£74
BOSS DF2 Distortion/Feedback	£56
BOSS DD2 Digital Delay	£135
BOSS DM3 Delay	£96
BOSS SP1 Spectrum	£39
BOSS NF1 Noise Gate	£43
BOSS CS2 Comp/Sustain	£61
BOSS OC2 Octaver	£61
BOSS VB2 Vibrato	£55
BOSS PH1 Phaser	£67
BOSS PH2R Phaser	£69
BOSS PC2 Percussion Synth	£75
BOSS HC2 Handclapper	£48
BOSS MA1 Mascot Amp	£56
BOSS DP2 Damper	£31
BOSS PSA220 Mains Adaptor	£15
BOSS ACA220 Mains adaptor	£15
BOSS PSM5 Pwr supply for max. 10 pedals	£82
BOSS FS1 Footswitch	£16
BOSS FS2 Footswitch	£20
BOSS DSD 2 Digi Delay Sampler	£156
BOSS MS100 100 w Monitor speaker	£84
BOSS MSA 100 Stand adaptor for above	£24
BOSS Carry Case Inc PSM 5	£133
BOSS BMR5 Micro Rack	£46.50
BOSS RDD10 Digi Delay	£140
BOSS RCL10 Comp Limiter	£105
BOSS RGE10 Graphic Eq	£105
BOSS RPH10 Phaser	£105
BOSS RBF10 Flanger	£105
IBANEZ Digital Flanger	£120
IBANEZ Digital Chorus	£120
IBANEZ Digital Delay	£129
IBANEZ AD9 analog delay	£79
IBANEZ GE9 Graphic	£49
CARLSBRO Profex ADR1...Shop soiled	£249
ROSS Power Supply 6-9-12 volt	£10.50
MELOS DE1 Digital Echo	£79
EC500 Super Echo Unit	£86
EP250 Super Echopet	£99
KORG Signal Delay	£99
SCHALLER Volume Pedal	£20
M/R Cry Baby Pedal WAH Vol	£49.95
TORQUE Spring Reverb Unit	£58
ROCKBOX Chorus Delay Distortion	£135
ROLAND CE300 Rack Mount Chorus	£177

SANOX PEDALS

SANOX 32sx Crossover	£20
SANOX 65sx Junction Box	£7
SANOX 70sx Pocket Amp	£15
SANOX 71sx Perc Synth 1	£20
SANOX 110sx Exciter	£20
SANOX 112sx Parametric eq	£20
SANOX Line Selector	£15

ELECTRIC GUITARS

FENDER Precision (Special) Bass	£495
FENDER Precision m/n	£335
FENDER Precision (used)	£199
FENDER Strat R/W 3 P/Ups w/Trem Red	£345
SQUIER 62 Precision Bass	£150
SQUIER Strats from	£199
TOKAI TST 50 (Selection Of Colours)	£199
TOKAI TTE (Selection of Colours)	£199
TOKAI TALBO (NEW Solid Metal Body)	£249
TOKAI Standard Bass Jazz	£199
IBANEZ RS 530 Guitar	£299
IBANEZ Roadstar Bass	£299
IBANEZ RS1300 B/K Guitar	£368
IBANEZ RS320 B/K Guitar	£259
IBANEZ RB760 Guitar	£285
IBANEZ Semi Acoustic (AS50)	£299
ARAI Pro II Knight Warrior Guitar Inc Case	£259
WESTONE Thunder 11a guitar	£182
WESTONE Prestidge 227 Red s/h	£225
MAYER TELE Black S/soiled	£120
MUSICMAN SAB RE II Guitar s/h	£235
HOHNER Headless Guitar	£249
HOHNER HTB-1 Black/Red	£225

DRUM MACHINES AT SPECIAL PRICES!

ROLAND TR606 Drumatix	£125
ROLAND DB66 Doctor Beat (Bargain!)	£48
ROLAND TR707 Percussion	£450
ROLAND TR727 Percussion	£450
ROLAND TR505 New!	£225
ROLAND OCTAPAD 8 pad w/midi control	£399
BOSS DR110	£119
YAMAHA RX21 New Drum Machine	£249
SIMMONS SDS 1 used (inc eeprom)	£149
UP DRUM PADS (pair incl. stands)	£95

AMPS CABS COMBOS

SESSION 75-112 Combo	£250
SESSION 75-210 Combo	£275
SESSION Bass Combo	£159
H/H MA150 150W PA Amp	£249
H/H Pro 100 PA Spkrs (Pair)	£360
H/H MA80 PA Amp	£180
H/H MA100 PA Amp s/h	£180
H/H B12 1x12 Speakers s/h	£195
WEM Songbird 300 Speakers Pair	£175
WEM Songbird 200 Speakers	£322
WEM Songbird Wedge Monitor	£276
YAMAHA G50 1x12 Combo	£155
YAMAHA JX30B Combo (used)	£250
VOX VENUE 120Watt PA Amp	£165
VOX VENUE Keyboard Combo 100Watts	£192
S/h Trucker Keyboard Combo 100Watts	£270
DEAN MARKLEY K20 Combo	£150
FENDER Bandmaster Used valve amp	£130
TRACE ELLIOT AH250 Bass Amp	£135

CARLSBRO AMPLIFICATION

CARLSBRO Cobra 90 PA amp	£189
CARLSBRO Marlin 6ch 150W PA Amp	£247
CARLSBRO 1x12H 75W Spkr Cabs (per Pair)	£220
CARLSBRO 2x12H 150W Spkr Cabs (per Pair)	£349
CARLSBRO Stingray Multichorus keyboard amp	£199
CARLSBRO 90 keyboard Combo	£253
CARLSBRO 90 Twin Combo	£240
CARLSBRO Cobra 90 Bass Combo	£229
CARLSBRO 150 Bass Combo	£249
CARLSBRO Hornet 45 Lead Combo	£299
CARLSBRO Hornet 45 Keyboard Combo	£162
CARLSBRO 150 Keyboard Amp	£183
CARLSBRO 150 keyboard Combo	£239
CARLSBRO Scorpion Lead Combo	£109

HEADPHONES

BEYER DT320	£30
BEYER DT109 w/Boom Mic	£30
BEYER DT330 Deluxe Model	£77
BEYER 302	£37
TECH. PROJECTS DM120 Headphones/Boom Mic	£27
GUITAR Practice Headphones	£19.95

MICROPHONES

BEYER M300 NCS	£89
BEYER M400 NCS	£89
AUDIO TECH Pro 1	£109
AUDIO TECH Pro 2	£26.99
AUDIO TECH Pro 3	£22
AUDIO TECH PRO 4L	£38
AUDIO TECH ATM41	£53
ALTAI DM1000 Dual Imp. mic.	£85
SHURE SM58	£25
SHURE SM57	£159
Full SHURE Prologue and PE Range Available ex stock	£124

MIC/SPEAKER STANDS

Mic Boom Stand (P&N)	£17
Mic Boom stand (MET)	£20.50
Mic Stand (Valen)	£29
Speaker Stand (per pair)	£72
Banquet Stand (MET)	£16.50

CUSTOM MADE FLIGHT CASES

Semi Flight Guitar Cases from	
1X3/Juno 106 ec., Keyboard cases from	£45
Cases made to order phone for details	£55

SAME DAY DESPATCH

(SUBJECT TO AVAILABILITY)

HOTLINE (0705) 660036

GOODS SHIPPED WORLDWIDE FAST - TELEX 869107 TELCOM G

TELECOMMS, 189 LONDON ROAD, PORTSMOUTH, HANTS PO2 9AE
USE YOUR CREDIT CARD (AMERICAN EXPRESS, ACCESS OR VISA) FOR IMMEDIATE DESPATCH

the perfect
beat

**NEW 60 MIN.
RHYTHMIX CASSETTE
TAPES**



£7.99
inc.VAT, P&P

Each tape contains no less than 16 modern drum rhythms, ranging from ballad to rock, from funk to disco. Each track with its own count-in, musically arranged eight bar phrases and fills (for verses and choruses) and track listing describing beat and duration. Ideal for songwriting/composing, for practising or simply backing/accompaniment. RHYTHMIX tapes are designed for all active musicians – also a must for the studio.

RHYTHMIX tapes have been specifically produced for MUSIC MAKER PUBLICATIONS and feature a leading professional session drummer. RHYTHMIX tapes will be produced as an ongoing series. Volume 1 available now – send cheque/postal order made payable to:
MUSIC MAKER PUBLICATIONS LTD.,
ALEXANDER HOUSE,
1 MILTON ROAD,
CAMBRIDGE CB4 1UY,
or use credit card Hotline (0223) 313722
ACCESS/BARCLAYCARD.

ROCK CITY
Roland

NEW ALPHA JUNO 1

Polysynth RRP £575

Rock City Price £525



NEW ALPHA JUNO 2

Polysynth £799



NEW JX10

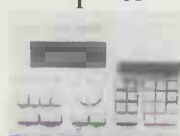
Polysynth £1899



NEW MC500

Micro Composer

£799



NEW MKS20 Digital

Piano Module £1199



NEW MKB200

MIDI Keyboard

Controller £599



NEW RD1000

Digital Piano £2499



NEW S-10 Sampling

Keyboard £POA



NEW S-50 Sampling

Keyboard £POA



NEW TR505

Drum Machine

£225



NEW PG300

Programmer

£199

NEW

CK100

Keyboard

Combo

RRP £579

Rock City Price £499

TR707

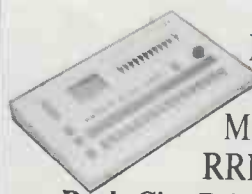
Digital

Drum

Machine

RRP £549

Rock City Price £499



TR727

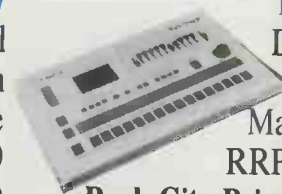
Digital

Latin

Machine

RRP £549

Rock City Price £469



ROCK CITY, 10 MOSLEY STREET.

ROCK CITY ROCK CITY



The Rock City/Yamaha partnership is unique. We stock EVERYTHING Yamaha make: Drums, Guitars (electric, acoustic, classical and bases), P.A. (including mixers, power amps, enclosures), Home Recording (including 4 track, reverbs, delays). The ultimate PS range of keyboards, the revolutionary hi-tec DX, RX, QX and TX series etc etc.



NEW DX27 Polysynth
Only £499



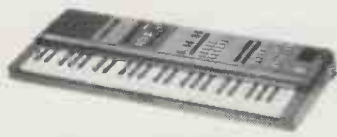
NEW DX21 Polysynth
including free voicings £649



NEW DX100 Polysynth
Only £349



NEW PF70/PF80 Pianos
PF70 £899 PF80 £999



NEW VS100 Sound
sampling keyboard for
under £180



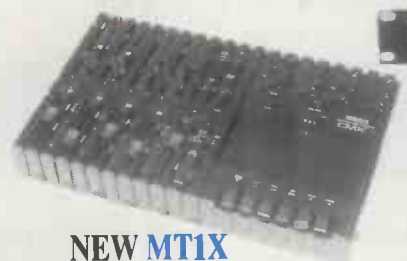
DX7 including free sustain
portamento pedal and new
sounds **PHONE US FOR
BEST EVER PACKAGE**



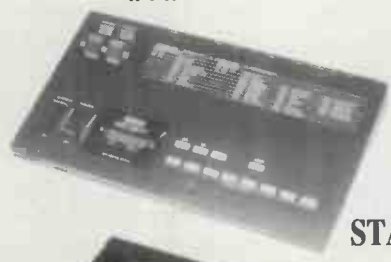
DX5 including two free
RAMS **STAR BUY**



KX88 MIDI Mother
Keyboard **STAR BUY**



NEW MT1X
Multitrack Cassette
£449



**NEW
MCS 2**
STAR BUY



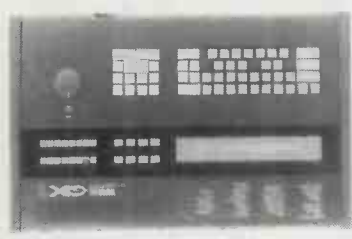
**NEW
QX21**
Sequencer
£259



RX21
Digital
Drums
STAR BUY



NEW RX21L
Digital
Latin
£249



QX1
Sequencer
**STAR
BUY**



NEW REV 7 Reverb
STAR BUY



NEW SPX90 Digital Multi Effects
Processor £599



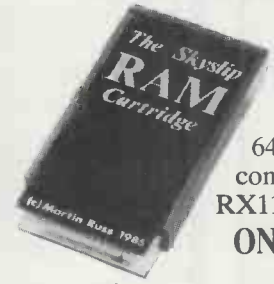
NEW SDS EFFECTS

- Overdrive £39
- Distortion £39
- Chorus £54
- Flanger £54
- Compressor..... £39
- Graphic Eq £54

NEW YAMAHA APF20
Revolutionary acoustic guitar
pick up system.
Call for info £59

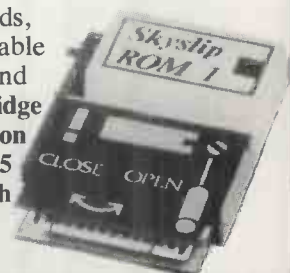
**NEW RANGE
YAMAHA MICROPHONES**
From £79.00
Call for details

Skyslip RAM & ROM Cartridges



RAM
64 memory,
compatible for
RX11, DX7, DX5
ONLY £59.99

ROM
64 new sounds,
Eproms available
to build sound
banks. Cartridge
£49.99 Add on
banks 1 to 5
£15.41 each



I · N · B · R · I · E · F

Yamaha SPX90 Multi-Effect Processor



Just when you thought it was safe to leave your 19" rack in the corner, Yamaha introduce a revolutionary new rack-mount machine. The SPX90 is a digital stereo multi-effects processor, which, in layman's terms, means that Yamaha have stuffed almost all the currently fashionable digital effects into one box, in order to give the user maximum results from a minimum of gear.

We've seen a number all-singing, all-dancing effects units before now, but most have failed in a vain attempt to pander to the differing requirements of guitars and synths. Let's face it, if anything could be all things to all men, Quentin Crisp would have sussed it years ago.

Yamaha have made their FX choices carefully: there's *no distortion* and *no sustain*, so this is definitely a piece of gear for hi-tech rather than three-chord thrash applications.

Internally, the SPX90 is a digital reverb with a DDL thrown in, or is that a DDL with a reverb thrown in? I suspect the latter, but either way, this system partially overcomes one of the average DDL's greatest shortcomings: its inability to give reverberation that doesn't sound like Marvin the Paranoid Android. The '90 covers Hall, Room, Plate, and Vocal reverb times, but in truth, they represent only the start.

You can also obtain mono delays up to 500mS long, stereo echoes of up to 250mS, plus a load of gating, parameteric EQ and sampling facilities thrown in. About the only real concession to the guitarist is the inclusion of a compressor, but I think I could live with that.

The unit comes with 30 preset programs on internal ROM, and will store a further 60 user programs in RAM, the program in use being indicated by the front panel LED display.

Basically, the factory programs cover a wide variety of eventualities from reverb, chorus, flanging and auto-panning, to echo and pitch-changing. These presets then provide the starting point for your own programs, and each is made up of up to nine user-variable parameters. The present setting appears on the front panel LCD, and can be adjusted using the familiar increment/decrement method. The resulting program

is then stored under one of the user memories with the help of the Store button.

Needless to say, the SPX90 offers the usual MIDI program-with-patch-change facilities for control from an external MIDI synth. MIDI also facilitates pitch control over the SPX90's Freeze programs, which a quick reference to my Yamaha/English phrasebook assures me are monophonic samples. The unit will hold a sample of up to 500mS in length, and depending on what mode you're in, this can be simply a retriggerable sample or a pitch-controllable (over five octaves) one. Editing of both start and end points is possible, and you can play your sample backwards simply by setting the start point nearer the end than the end point – easier done than said.

The SPX has a couple of foot-switchable features, useful for those with their hands already full of keys.

The first of these is a Bypass facility which simply defeats the current effect and allows your untreated signal to appear at the machine's outputs. The second is a little more involved, has a dual function and goes under the name of Memory Trigger. In its first mode of operation it allows footswitch selection of pre-determined programs in conjunction with the Utility button, and in its second, it triggers Gate and Freeze effects.

Finally, those who like to keep well away from their racks in the normal course of composing/performing/recording will be glad to know there's the option (at extra cost) of a hand-held remote control unit, the RC7.

The SPX90 had been in our hands less than a day when this issue of E&MM went to press, so I'm afraid I can't be any more specific about the effects it produces or how they sound. You'll just have to wait until a future issue for that.

Its specification makes mighty impressive reading, though, and my only major doubt concerns what you're supposed to do if you want to flange your echo effects, and then add just a modicum of reverb. Anyone for a bank of SPX90s? ■ *Tim Goodyer*

Price RRP £599
More from Yamaha Kemble, Mount Avenue,
Bletchley, Milton Keynes, Bucks, MK1 1JE. ☎
(0908) 71771

WHO ELSE OFFERS ALL THIS?

- (1) THREE FLOORS FULL OF THE LATEST EQUIPMENT
- (2) BEST PRICES
- (3) FREE DELIVERY
- (4) SERVICE DEPARTMENT (TWO ENGINEERS)
- (5) MAIL ORDER
- (6) FRIENDLY & KNOWLEDGEABLE SALES STAFF
- (7) SIX FULL DAYS TRADING
- (8) LATE OPENING TWO NIGHTS (MON & THURS TILL 9PM)
- (9) INCREDIBLE RANGE (FROM PLECTRUMS TO 16 TRACK RECORDING)
- (10) CREDIT FACILITIES (INSTANT & NO DEPOSIT + ACCESS & VISA)
- (11) ESTABLISHED OVER 12 YEARS AT THIS ADDRESS
- (12) MAIN AGENTS FOR ALL LEADING MAKES

WHO ELSE? – ONLY JSG YORKSHIRE'S BIGGEST & BOLDEST MUSIC SUPERSTORE

GUITARS & AMPS

Guild – Hamer – Kramer – Aria – Jaydee
Vigier – Pangborn – Status – Fender
Squier – Tokai – Wal – Ibanez – Gibson
Washburn – Westone – Overwater
Marshall – Trace Elliot – Peavey
Dynacord – Acoustic – Session
Carlsbro – H/H and more

RECORDING/P.A.

Fostex – Tascam – Revox – Yamaha
Rebis – Lexicon – H/H – Soundcraft
MTR – Seck – Ram – Dynamix – Harrison
Bel – Studiomaster – Beyer – Shure
Electrovoice – AKG – Tannoy – JBL
Bose – Carlsbro – Turbosound
Martin Audio and more

KEYBOARDS/HI-TECH

Electronic Drums – Yamaha – Roland
Korg – Casio – Sequential Circuits
Mirage – Siel – Simmons Drums – Tama
Dynacord – MPC and more

J.S.G



INSTANT
CREDIT
NO
DEPOSIT
HP

104/6/8 Main Street, Bingley, West Yorkshire, BD16 2JH.
Telephone: Bradford (0274) 568843/564389/561044

OPENING TIMES

MON 11.00am–9.00pm – *TUE 10.30am–5.30pm – WED 10.30am–5.30pm
THUR 11.00am–9.00pm – FRI 10.30am–5.30pm – SAT 10.00am–5.30pm

DOUGIE'S

Music Store

5-7 CHESTER ROAD, NORTHWICH, CHESHIRE
TELEPHONE 0606 782522
OPEN 10-6 (CLOSED WEDS - BOTH BRANCHES). LATE NIGHT THURSDAYS



FLASH STREET ELECTROMUSIC

(ABOVE JAMM STUDIOS)
END OF GT. MOOR ST.
BOLTON, LANCs.
TELEPHONE

0204 397893

THE THREE FAVOURITE SAMPLERS ALL UP AND RUNNING IN THE SAME ROOM!

AKAI S612 RACK MOUNTED DIGITAL SAMPLER WITH DISC DRIVE - COMPLETE £995?

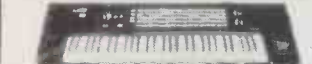


ensonia MIRAGE



NEW LOW PRICE £1295!

Sequential
PROPHET 2000 DIGITAL SAMPLING KEYBOARD



NOW ON DEMONSTRATION £1995!

OVIATION SALE ONLY ONE OF EACH

CELEBRITY WITH HARD CASE.....£299
LEGEND S/H.....£199
ELITE W/C.....£249
ELECTRIC LEGEND (BLACK) W/C.....£599

NEW ARRIVALS THAT SHOULD BE IN STOCK

YAMAHA
DX100 · DX27 · DX21 · RX21L

KORG
POLY 800II · EX8000 · DVP1

Roland
TR505 · OCTAPAD · MC500

ensonia

RACK MOUNT SAMPLER MODULE
NEW 8 VOICE, 24 OSCILLATOR,
TOUCH SENSITIVE SYNTH
AT ONLY £899

Sequential
NEW PROPHET VS SYNTH
PHONE US
FOR AVAILABILITY FIRST...

A FEW KEYBOARDS!

PHEW

POLYPHONIC SYNTHS

ARP QUARTET.....	£1199
KORG DELTA.....	£1199
ROLAND JUPITER 4.....	£2229
ROLAND JUNO 6.....	£345
ROLAND JUNO 6.....	£369
KORG POLY 800.....	£399
KORG POLY 800 II.....	?
KORG POLY 61.....	£499
KORG POLY 61.....	£449
ROLAND JX3P AND PG200 PLUS CASE AND PEDAL.....	£599
ROLAND ALPHA JUNO 1.....	?
ROLAND ALPHA JUNO 2.....	?
ROLAND JUNO 106.....	£649
KORG DW6000.....	£649
KORG DW8000.....	£899
YAMAHA TX7.....	?
YAMAHA DX21/27.....	?
YAMAHA DX7.....	£999
YAMAHA DX7.....	BXD£1250
ROLAND JX8P.....	£999

A FEW MORE KEYBOARDS...

ROLAND JX8P.....	BXD£1149
AKAI AX80.....	£699
AKAI 73 APPROX.....	£750
SEQUENTIAL VS.....	?
SEQUENTIAL T-8.....	£1999
RHODES CHROMA.....	£1499
YAMAHA GS2.....	£1299
OBERHEIM MATRIX 6.....	?
MONOPHONIC SYNTHS	
ARP AX6.....	£169
ARP SOLUS.....	£199
ARP PRODIGY.....	£199
OCTAVE KITTEN.....	£399
OCTAVE CAT.....	£149
JEN SX1000.....	£69
JEN SX2000.....	£79
YAMAHA CS01 (3).....	£69
YAMAHA CS5.....	£99
MICROMOOG.....	£399
MULTIMOOG.....	£99
MINIMOOG.....	£250
MINIMOOG.....	£499
SEQUENTIAL PROPHET 1 (6).....	£199
MOOG ROGUE.....	£199
MOOG SOURCE.....	£345
MOOG SOURCE.....	£250
OSCAR (M).....	£469
KORG VOCODER.....	£250

OTHER KEYBOARDS

ARP 4-VOICE.....	£250
RHODES II 73.....	£345
YAMAHA YPR8.....	£345
YAMAHA PF15.....	£799
KORG EPS1.....	£499
YAMAHA CP70B.....	£799
YAMAHA CLAVINOVA5.....	?
YAMAHA PSR50 ETC.....	?
JVC KB600.....	(BXD)£399
JVC KB700.....	£399
TECHNICS SXK200.....	£299

JUST BECAUSE THEY'RE NOT POSSIBLY MADE ANYMORE DOES NOT MEAN THEY'VE BEEN IMPROVED UPON! e.g. MINIMOOG!

ABBREVIATION CODE

A - AS NEW, MINT AND 12 MONTHS GUARANTEED.
B - GOOD SECONDHAND CONDITION AND 6 MONTHS GUARANTEED
C - WELL USED BUT WORKING WELL (JUST LIKE DOUGIE!) GUARANTEED BY MUTUAL ARRANGEMENT
? - YOU'LL HAVE TO FIND THE PRICE OUT YOURSELF!
X - EX-DEMONSTRATION, CONDITION AS SEEN AND 12 MONTHS GUARANTEED
BXD - STILL IN UNOPENED CARTON I.E. NEWER THAN NEW!
NO ABBREV - BRAND SPANKING NEW

Fostex

MODEL 80 8-TRACK RECORDING PACKAGES

FOSTEX BABYTRAX
X15 PLUS 8070 POWER
SUPPLY ONLY
£249



PACKAGE
DEAL EXAMPLE:
MODEL 80 RECORDER PLUS
450 MIXER PLUS TWO
ACCESSIT EXCITERS £1999
MODEL 80 ON ITS OWN £1349

MADE IN USA



Just some of this incredible range in stock...
XR4/XR6/SP3/BANDIT/MKIV BASS HEAD
STEREO CHORUS 400/RHYTHMASTER
SPECIAL 130/STEREO CLASSIC PATRIOT
BASS/MILESTONE GUITARS...

MIDI-LINK

making MIDI manageable



Are you struggling to make MIDI quick and easy to use? Are you getting tired of reaching round the back of your synths to re-plug DIN cables every time you want to reconfigure your system? If so, then one of the Quark MIDI-LINKS is for you. Via thumbwheel switches, the 999 allows up to 9 controllers to address up to 9 slaves (independently or simultaneously) on 9 separate busses. Alternatively there is the MIDI-LINK 448, which using rotary switches allows 4 controllers to address 8 slaves on 4 busses. Ideal for the smaller MIDI system in both flexibility and price.

Available from most leading music stores



Quark Ltd., 16-24 Brewery Road, London N7 9NH. Telephone: 01-609 8282

HOLD

THE FRONT PAGE

WRITE A FEATURE - WIN A DX100



Ever wished you could become one of E&MM's regular contributors, reviewing the latest gear, rubbing shoulders with the famous, and seeing your name in print every month? Ever read a feature in the magazine and thought you could have written it better? Ever stood aghast in a music shop while an assistant demonstrates the wonders of Yamaha FM synthesis technology, only to find that the £2.45 in your pocket won't even buy you the breath controller?

Well, if you've experienced any of those three emotions - or something approaching them - this is your chance to remedy your predicament. Because for the first time in its history, E&MM is asking its readers to contribute features on a free-for-all, no-holds-barred basis. All you have to do is think of something to write about and write about it.

And, if your feature is the one we select as the best of those submitted, three things will happen. First, the feature in question will be published in E&MM. Second, you will be engaged as a freelance editorial consultant, a post that could lead to all sorts of fascinating experiences, such as taking home a new Fairlight system for long-term evaluation,

spending a week crossing the Amazon jungle with Jean-Michel Jarre, and having your copy butchered mercilessly by the Editor. Third, and perhaps most significantly, a brand new Yamaha DX100 polynsynth will arrive on your doorstep, with the compliments of Music Maker Publications and Yamaha-Kemble (thanks, guys).

There is no catch. The only thing that will prevent you from entering the competition is being related to an employee of one of the two companies mentioned above, and such other regulations as may stand between you and overnight stardom aren't really worth worrying about.

Briefly, these are the rules. First of all, decide on a particular topic you think is worth putting pen to paper over. This can't be just any old topic - it must lie within the normal editorial scope of E&MM, and ideally, it should be something guaranteed to arouse interest amongst the magazine's staff (because we're the people judging the competition). Thus items about writing songs, user reports of instruments, and general articles discussing the state of today's music technology are perfectly acceptable, but short histories of the

Albanian people and lists of mid-70s Yorkshire batting averages are not.

Before you actually begin writing, bear in mind that you are limited to a maximum of 1200 words on your chosen subject. That isn't an awful lot, we admit, but it does at least ensure the amount of superfluous verbiage is reduced to a minimum and, much more importantly, it makes our task a great deal easier. When you're happy with your recently completed novella, clip the coupon below and attach it to the manuscript (preferably typed, double-spaced, on one side of the paper only), and send the whole thing off to us at the editorial address, marking your envelope 'Hold the Front Page'. Finally, do your utmost to ensure your entry reaches us before the closing date of Tuesday, April 8. Because if it arrives any later, we'll use it to wrap our fish and chips in.

So, if you want to write alongside such well-known media personalities as Paul Wiffen and Annabel Scott, shake hands with megastars like Howard Jones and Brian Eno, and play havoc with 192 FM synth voices, this is the only chance you'll get for years.

What are you waiting for? Get scribbling!

My feature is called.....

My name is.....

My address is.....

.....

..... Postcode Daytime ☎

SHOWTIME

NAMM WINTER MARKET, ANAHEIM

“I’ll remember it as being the most exciting, yet bewildering, trade show I’ve visited in all my years of music journalism.”
Paul Wiffen

One thing is certain about this year’s Winter NAMM Show: three days were not enough to cover it. I spent all the available time gathering a stack of literature and brochures so big I nearly had to pay excess baggage on it, and still came away feeling that I’d only scratched the surface. Still, here are some highlights from a show I’ll certainly remember as being the most exciting, yet bewildering, in all my years in music journalism.

Let’s begin with the longest awaited product: the Series III **Fairlight**. The latest version of the world’s most successful computer musical instrument seems to be nearing general availability, but apart from the instruments themselves, the star attractions on the Fairlight stand were Herbie



Sequential Prophet 2000 now has modular 2002 sampler as companion, though both were overshadowed by company’s new VS polysynth, best analogue-digital hybrid yet

Hancock and Thomas Dolby doing the demonstration honours. Frankly, I was less than impressed by the whole thing. The start of the session I attended was delayed by the crashing and subsequent re-booting of the entire system, and in a misguided attempt to cover this embarrassing pause, Dolby was asked what the Fairlight had done for him. He replied: ‘It has expanded my musical vocabulary. If I want to try timpani on a song, I can do it in the comfort of my own home. Of course, it’s more fun to use a real player on record, but it gives me the means to try out ideas. And if you’ve got \$65,000 that’s what the Fairlight can do for you. I know it’s tough, but that’s how it is!’ Love the sales pitch, Tom.

When the system was finally working, our two heroes attempted to jam over a horrendously out-of-time drum part programmed by a Fairlight salesman. And as for the speakers through which the system was being played, they’d have disgraced a home music centre, so there was no way of telling if the samples were the cited 16-bit, 50kHz or the original eight-bit. Software-wise, there was no sign of either the much-heralded CAPS (Composer/Arranger/Performer Software) or the new polyphonic version of Page R.

In contrast, the Fairlight Voicetracker was seen

to perform admirably. It tracked sax, flute and human voice without glitching, and has many splendid features to enhance MIDI or CV/Gate control of synths. Just what professional non-keyboard players have been waiting for to give them complete control of synths, but a mite expensive at \$2895.

If, like me, you start feeling a bit impoverished at the sight of a Fairlight price list, **Casio** have got a tonic for you.

Their SK1 sampling keyboard has 1.5 seconds of eight-bit, 8kHz sampling and eight-voice polyphony. Its 32 keys are of the miniature variety, but the machine is set to retail in the UK for the absurdly low price of £99, so there’s no cause to complain. We’ve quipped, in the past, about Casio doing a Fairlight equivalent for silly money, but we never dreamed they would come this close.

Aside from Casio and Yamaha (with their competing VSS100 mini-sampler, in the shops by the time you read this) manufacturers seem to be settling on the middle-ground of the sound-sampling market, as already typified by the Mirage, Prophet 2000 and Akai S612. At NAMM, anyone who was anyone was launching a 12-bit, 31.25kHz sampler somewhere in the £1000-£2500 price bracket.

Sequential, whose machines are of a higher spec anyway, announced an update to the 2000 at the show. This doubles the available memory (and therefore the maximum sample length), and includes a double-sided disk drive to cater for the extra storage and a new software EPROM to allow the Prophet to work with Digidesign’s adaptation of their Sound Designer package. The update is due to cost £395, and I’ve ordered mine already.

Also making its show debut was the rack-mounting Prophet 2002, which has exactly the same spec as the 2000, and should retail for £300 less than the keyboard version. It features several ergonomic improvements over the 2000: a much more tasteful front panel, some proper switches and (sigh of deep joy) sample input and level controls you can get at easily.

Somehow, I found time to bend half an ear toward some new library disks for the 2000/2. American sounds include Choirs, Violin, Vibes, Drum Kit, Xylophone, String Bass, Flutes, Sitar, Tabla and Harp, while European offerings include Beat Box, Stick and Lead Guitar, with more to be announced at Frankfurt. Without exception, they sounded fine.

Despite all this, the most exciting thing on the Sequential stand had nothing to do with sampling at all: the brand new Prophet VS synthesiser. The VS bit stands for Vector Synthesis, a digital system which threatens to eat the PPGs and DX7s of this world for breakfast. See elsewhere in this issue for an exclusive preview of this machine.

Several Japanese companies showed new sampling keyboards at NAMM, but none of them exhibited the dramatic price drop so many had been predicting.



Tasteless Ensoniq stand was typical of gaudy NAMM aesthetics; product was good, though, with modular Mirage, sampled piano, and new digital polysynth all making impressive debuts

The Roland S10 should be among the cheapest, but it has only 128K of memory giving just four seconds of sampling. The bigger S50 looks a much better bet, with a massive 512K memory giving 17.2seconds of sampling, and in-built software for voice editing on any RGB monitor screen, with no additional hardware required. Very clever.

The new sampling technology is also used in Roland's new digital pianos, the 88-note RD1000 and the rack-mounting MKS20. Most exciting product on the stand for me, though, was the new Roland MIDI sequencer, the MC500. This looks all set to provide the sort of flexibility only disk-based units can, but more cheaply than the current standard MSQ700, which lacks any form of a disk drive at all.



Roland S50 sampler was best-specified of a whole host of prototype keyboards from Japan, is aimed at currently unpopulated sampling middle-ground, sounded OK through terrible demo sound system

Sampling exhibited itself on the Korg stand, too. Their DSSI is a sampling synthesiser with some interesting new applications of old standards like oscillator detuning and syncing. More than any of the new breed of samplers, Korg's machine offers great potential to those who want to mix their sampled sounds with synthesised ones, merging the two technologies to produce 'real' voices that sound genuinely different. Only 128K of memory, though.

Comments on how these new samplers actually sound will have to be reserved for the Frankfurt report (coming up in the next couple of pages), as

the standard of demonstration at NAMM was lamentably low, and some instruments looked decidedly half-finished to these eyes.

Just about the only thing worthy of attention on the Yamaha stand was the SPX90, a digital effects processor that seems to be able to turn its 16-bit chip to any effect you ever heard of. By storing 30 different internal configurations in ROM, it can become a digital delay, a reverb (with gating), a compressor, a MIDI-controlled harmoniser and sampler, a flanger, a chorus, an auto-panner, and a parametric EQ, all for a miraculous RRP of £599.

Apparently, it is now a worldwide Yamaha policy not to show new gear too far in advance of its general availability. So, the world will have to wait till summertime before it gets a look at the main bulk of Yamaha's new 1986 product. For the time being, we'll have to make do with the SPX90.

But back to the Americans and Ensoniq. Having established themselves with the Mirage, the company that gave a whole new generation of musicians affordable sampling are now expanding their product range into new areas. The 10-voice Ensoniq Piano, for example, features 12 multi-sampled sounds (including Grand Piano, Electric Piano, Upright and Electric Bass) onboard. All the voices compare favourably with their Mirage counterparts, and the 76-note weighted keyboard also has a favourable price: £960.

Like Sequential, Ensoniq also unveiled a digital synth at NAMM, seemingly from nowhere. Theirs is aimed at a slightly lower price bracket, and is called the ESQ1. Voice-generation consists of three oscillators per voice, each of which can play any of 32 preset waveforms of multi-sampled or synthetic varieties. These are then passed through complex filter and amplifier envelopes, with some old-tech features like ring modulation also available. The internal 40-program memory can be expanded to house 120 via external cartridge.

The ESQ1 has a built-in sequencer in addition to its fine-sounding synth section, and Ensoniq are rightly making great play of this, as it leaves the simplistic version in the Mirage very much in the shadows. Eight tracks of multi-timbral recording are possible, with dynamic assignment (up to full eight-note polyphony) of the internal voices on each track. Alternatively, up to eight voices can be sent out on each MIDI channel for use with other MIDI instruments.

The cost of all this versatility? Again, around £960.

For those who thought the Mirage was the best thing since sliced bread, there's the Ensoniq Multisampler, a rack-mounting version of the Mirage with an extended feature list, including aftertouch and breath control via MIDI. This product should also retail in the UK for, yes, you've guessed it, £960.

Existing Mirage owners need not fear of their machines being made obsolete by these developments, as a new 3.1 operating system makes all the new MIDI features available to old(?) Mirages.

And the Mirage itself also gets a facelift for '86, both internally and externally. There's a new weighted keyboard, and the aesthetics have been altered to incorporate a grey finish with colour-coded yellow and white buttons. Internal modifications ensure a better signal-to-noise ratio and an enhanced frequency response. The price remains

► unchanged at £1295, which includes the 3.1 operating system, the MASOS software and the Advanced Sampling Guide.

In addition to the Visual Editing Software for the Apple II shown at Summer NAMM in '85, Ensoniq now have a similar package for the Commodore 64. They're also distributing a faster package for the Apple Macintosh written by the unlikely-sounding Blank Software of San Francisco.

Now to a machine which, though by no means new, certainly turned a lot of heads at Anaheim. The MIDI Bass is a small, innocent-looking box which, when attached to any velocity-sensitive MIDI keyboard, provides you with some truly remarkable sampled bass sounds. The unit comes with straight



Attractive Linn MIDistudio is no more than repackaged Linn 9000, features 'lap pad' for remote programming in control rooms away from main unit, but costs no less than original machine

and slapped Fender Jazz, Plucked Upright and Minimoog Bass samples, in a package that reminds me of a cross between a digital drum machine and the Roland TB303 Bassline. You change sounds simply by inserting new EPROMs, and the MIDI Bass' manufacturers, **360 Systems**, are offering a whole library of sounds ranging from Bowed Double Bass, through Steinberger, Rickenbacker, Stick and Eight-String Bases to Keyboard Bass notes taken from Rhodes and DX7 instruments. The chips cost \$50 each.

Amazingly, the MIDI Bass has received little distribution in Europe, but a large shipment should have arrived in the UK by the time you read this.

Oberheim's new rack-mounting Matrix 6R looks like being a big seller in the States at its RRP of only \$1299 (that's less than a grand in real money). However, it remains to be seen whether the UK price can be made as competitive. The keyboard-equipped version of what is, after all, one of the world's most versatile analogue synths, has suffered in some markets from a dollar-inflated price tag.

Going back to pitch-to-MIDI converters, there were examples of these almost everywhere you looked at Anaheim. Of these, however, only two systems looked to me as if they really worked: the **IVL** Pitchriders and the **Ibanez** MIDI guitar system. The IVL models seemed particularly quick and accurate, throughout a range that goes from the 400 and 1000 (which work with the Commodore 64 and Amiga computers respectively) to a rack-mounting dedicated unit being demonstrated with Kramer guitars.

They might not be taking off as strongly as predicted in the UK, but computer software packages abounded at Anaheim like at no other show I've visited before. The most popular music micro across the Atlantic is the Apple Macintosh, which is almost laughably cheap in its country of origin.

Amongst the best of the Mac packages are the epically-named **Mark of the Unicorn** Song Performer and the MacMIDI from **MusicWorks**, a range that includes interactive real-time sequencing and scorewriting packages.

The **Digidesign** Sound Designer package (reviewed in its Emulator II version in E&MM December '85) is now available in two other incarnations, for the Prophet 2000 (\$495) and Ensoniq Mirage (\$395). The good news here is that all files are cross-compatible, so that a sample taken on any of the above machines can be transferred across to a Sound Designer Macintosh disk, and then loaded into either of the other two machines using the appropriate version of the software. This means that EII, 2000 and Mirage owners can swap samples amongst each other without having to wait for E-mu and Ensoniq to implement the newly-established MIDI protocol for transferring sample data.

Other computers which had software and hardware packages announced for them at Anaheim, included the Commodore Amiga and 128, and the Atari 520ST. **Hybrid Arts** now have their excellent MidiTrack package (honourably mentioned in dispatches from last June's Summer NAMM show) available for all current Ataris, Commodore 64 and 128, and IBM PC.

But **Mimetics** are the really courageous ones. Despite continued rumours of an impending Commodore collapse, they're going ahead with a complete Amiga Music Studio series, which will take advantage of the Amiga's unrivalled internal sound capabilities, graphics, and high-speed communications. The more software there is available, the more likely the Amiga is to succeed, so Mimetics' endeavours deserve a lot of praise.

Less daringly, **Syntech** entered the IBM PC field by making their Studio I sequencer package (much praised in its C64 format in E&MM November) available in a 48-track version for \$449. Their C64 range was expanded by the addition of a Roland JX Editor/Librarian package, with the novel feature of a syncable 'bass-line generator' thrown in. On the hardware side, they had several interesting products, including a 16-into-16 MIDI routing box.

Syntech were also one of several companies showing expanded storage cartridges for the **Yamaha** DX and RX ranges. Their 64-program RAMs sell at \$99, while 128-program ROMs have all-new sounds for the same price.

Other expanded RAM cartridges were shown by **Symphony** 128, and my personal favourite, the **Maartists** range, whose four-bank DX7 RAM features the authentic Yamaha edge connector, and LED indication to show which bank you're working on. The same company's Casio CZ RAMs hold two banks (32 programs) for the same price as the 16-sound originals. Personally, I reckon some wise UK distributor should jump on this product range quickly.

Another fascinating offshoot of the FM industry is the **Beetle** range of add-ons. Their PR7 dedicated programmer, for example, provides a duplicate of



Apple Mac software abounded at Anaheim as Stateside musicians get bitten by the computer bug; Compact Disc ROM unit for Emulator II is shown on left, stores more sounds than chips, cartridges, disks or tapes

the DX7 front panel, complete with RAM cartridge socket, for musicians thinking of buying TX7, TX216 or 816 expanders, but who don't want to have to acquire a DX7 to program them. Ingenious.

Beetle's QRI RAM Disk has wider appeal, as it plugs directly into any RAM-based synth (DX, CZ, JX and so on). A single quick disk can store 30 RAM cartridges' worth of data, or 960 DX7 sounds. Access is near instantaneous, and each QRI comes with the adaptor of your choice: Yamaha, Casio or Roland.



Casio RZ1 drum machine caused a stir at both Anaheim and Frankfurt, offers digital preset voices and user-sampling facilities at sensational RRP of under £400

Sound storage is one theme being picked up on by **E-mu Systems**. The company had no new products to offer at NAMM, the update-based support they're now offering to the Emulator II and SPI2 drum machine should ensure longevity for both.

The hard disk option for the EII is now fitted as standard to the host machine, and retro-fits are available in the US. However, American restrictions on hard disk exports could cause something like a six-month delay before the update is available in the UK. The hard disk allows the equivalent of 23 floppies to be stored onboard, and accessed in a

maximum of two seconds, while floppy disk libraries can still be loaded and stored internally at will. Add about \$2000 to the price of a new machine or a retro-fit.

E-mu's CD ROM option is equally intriguing, as it gives access to over 1000 banks of sounds with a load time of just four seconds. All available E-mu sounds have been put on the first CD, and more will be issued as sounds become available. As far as I can see, no other system will be able to compete in terms of mass storage of samples, instantly ready for use.

The SPI2 now has an update called Turbo, which is already being delivered and fitted as standard to new machines. It gives a vital update to five seconds of user sampling onboard, but already there's talk of a 'Rambo' revision which would bring this figure up to 15.

Not quite such good news on the **Linn** stand, where the company that invented the digital drum machine had only more repackaged versions of existing designs to show for their R&D labours. The Linn MIDistudio is simply a Linn 9000 in a 'workstation' type box, with a detachable remote pad you're supposed to put in your lap. The main box can be rack-mounted, but you need to be able to get at it to change disks and volume levels.

Kurzweil fared no better. The backbone of their operations continues to be the 250 digital keyboard, now available in a variety of modular and dedicated formats. But there's no sign of any new instruments on the horizon, and the only previously unseen items on the Kurzweil stand were a couple of new boxes for the 250: a home version complete with 'furniture-style cabinetry and optimally-matched audio components', and a roll-top model for church and school use. Pretty stunning stuff, I'm sure you'll agree.

As far as the actual keyboard is concerned, there's no change except that the internal sounds have been re-sampled at a better rate, and user-sampling can now be increased to 50kHz, too. Recent software revisions finally allow for SMPTE compatibility and an expanded sequencer capacity. All these features will come as standard in the basic price from now on, but if you've already bought a Kurzweil, you have to fork out a further \$3000 for the improvements to be retro-fitted.

All in all, my guess is that Winter NAMM '86 will be remembered as the show which gave the man-in-the street access to the technology rock stars have been playing with for years. Sampling with the Casio SK1; wavetable synthesis with the Prophet VS; digital pianos with Ensoniq, Roland, Korg and Technics; and accurate pitch-to-MIDI conversion with IVL, Ibanez and others.

As a consequence, it may also be remembered as the first nail in the coffin of traditional hi-tech manufacturers such as Linn, Kurzweil, NED, and maybe even Fairlight, who've failed to come up with economically priced alternatives. I sincerely hope this doesn't turn out to be the case, but a reputation doesn't last long if people can buy cheaper elsewhere.

Whatever the results, Winter NAMM '86 was one of the few Californian trade shows that's had so much to offer in the way of innovation, it's dragged me forcibly away from the hotel swimming pools, and prevented me from spending an afternoon in Disneyland. Or even thinking about it. ■

MUSIKMESSE '86, FRANKFURT

“The vast network of aisles and corridors became almost claustrophobic, and you needed the stamina of an American footballer to push your way through the crowds.”

Dan Goldstein

This was supposed to be a trade-only show, but security was less effective than ever at Frankfurt this year, and local musicians outnumbered bona fide businessmen by about two to one. In some ways that was no bad thing, as many music traders aren't actually musicians at all, and are therefore unlikely to derive much benefit from the endless run of demonstrations, seminars, lectures and concerts. On the other hand, the additional influx of German musos made the Messe's vast network of aisles and corridors seem positively claustrophobic, and on the second day (Sunday), you had to have the stamina of an American footballer to push your way through the crowds.

Those crowds had plenty to see, hear, play with and trample on, and at the hi-tech end of things (the Frankfurt Musikmesse covers everything from baroque organs to laser harps), there was simply too much to take in, even for an experienced hack.

This year's fair witnessed the consolidation of old trends rather than the setting of new ones. As in '85, there was an abundance of new electronic drum systems, another surge of interest in rack-mounting effects units, new software for a variety of host computers, and MIDI on the back of everything. Most of all, there were samplers. Hundreds of them (well, almost) at varying stages of development and/or production, but all on demo to the hordes of

sound and graphics data direct to an external colour monitor for on-screen voice-editing purposes, without the need for any awkward computer keyboards or costly external software. You can even connect an MSX computer mouse to make screen manipulation even easier. Price of the S50 will be under £3000, which puts it in the currently unoccupied middle-ground between the Prophet 2000 and the Emulator II.

Occupying a similar price position is the **Korg DSSI**, which has considerably less memory than the Roland, but offers more in the way of sample editing facilities, a more comprehensive analogue sound-manipulation section (VCFs and VCAs) and two programmable digital delay lines.

The DSSI sounded excellent under the capable hands (and feet) of demonstrator Don Muro, whose ability to sound like a full orchestra under the hectic, sweaty conditions of Korg's demo room impressed everybody who saw him, flitting slickly from the astonishing DVPI voice processor (E&MM review soon) to the sampler prototype via a huge set of MIDI bass pedals.

Korg weren't the only company lucky enough to have recruited a professional, versatile demonstrator. **Akai**, for instance, employed the services of American singer/musician Sally Towns, who made what could have been a very technical, schoolteacher seminar into an enjoyable musical event, and followed that one evening by joining a jazz band on stage in a Frankfurt nightclub. There should be more like her.

Of the machines she was demonstrating, it was again a new sampler – the S900 – that stood out as being worthy of special attention. The new machine takes over from where Akai's S612 leaves off, with a massive maximum sampling time of 48 seconds at 20Hz-4kHz bandwidth, or 12 seconds' worth with a bandwidth of 20Hz-16kHz. In common with most other new-generation samplers, the S900 is a multi-sampling device, capable of storing up to 32 (fairly short) samples and letting you play them from different sections of a MIDI keyboard.

The 900's built-in 3.5" disk drive isn't just a means of storing samples; it will also be used as a means of loading up alternative operating systems in software, so that the module can be used as the nerve centre of an eight-voice sinewave synthesiser, a digital multitrack sequencer, and a comprehensive waveform editing system. The S900 is due to have an RRP of £1599 when it becomes available in the UK in April/May, which is cheap enough as it stands simply as a sampler, even without any of the additional software.

At the bottom end of the sampling scale, **Casio** have followed Yamaha's lead in developing an instrument aimed at guiding music newcomers into the world of recording a sound, storing it in digital memory, and playing it back from a keyboard. Wiffen has beaten me to a description of the company's new SK1 sampler, but quite how Casio have managed to make their machine an eight-voice polyphonic keyboard with a range of quite



Akai demo room in quiet moment between entertaining and enjoyable concerts; S900 sampler, MPX820 MIDI mixer and finished 16-track sequencer are among the new machines

sample-hungry dealers, punters and press people.

Paul Wiffen has already commented on most of the sampling keyboards on show at NAMM, so I won't go into unnecessary details here. Suffice to say, though, that the most impressive of the new breed to these ears is the **Roland S50**, which, along with most of the other Frankfurt goodies, was being demonstrated more sympathetically than it had been two weeks earlier in California. The Roland follows current sampler fashion in supplying a host of keyboard-splitting options for real-time playing of several different samples at once, and also offers some Sequential-style multi-timbral MIDI facilities. But its most noteworthy feature is its ability to send



Astonishing Hohner Compagnon is designed to combine home organ ease of use with synthesiser versatility, was one of many 'modern' instruments from revitalised organ industry

acceptable preset sounds and still sell it for under £100 amazes me just as much as it does him.

Their RZ1 drum machine is similarly astonishing, for although its digital voices aren't quite up to Roland or Yamaha standards, Casio have managed to fit some expensive hardware items like separate audio outputs, individual level sliders, and a proper numeric keypad for data entry. Then, of course, there's the RZ1's *coup de grâce* – its ability to store four user-sampled sounds in memory at any one time, and dump them to tape whenever you want to make room for more. Maximum sampling time for each of the sounds is 0.2 seconds, but you can combine these individual memories into one to create a single, extended sample 0.8 seconds long.



Kawai K3 polysynth uses digital waveform system not dissimilar to Korg's DWGS, is seen here with new upright MIDI piano

Price? Well, expect the RZ1 to cost well under £400.

A more comprehensive sampling drum machine was on show at the RSF stand. The French company's new SD140 machine is identical in spec to the DD30 reviewed in E&MM February, save for the fact that it has a 12-bit sampling facility capable of storing up to 16 different sounds onboard, with a total sampling time of between 3.25 and 13 seconds, depending on the sampling rate you use. You can split this sampling time any way you like between the available memory locations, save all the sounds to tape or MIDI disk drive, and play them over user-selected zones from a MIDI keyboard. The SD140 costs about a grand, which is still pretty competitive,

and the good news is that the Frenchmen were negotiating with a potential UK distributor during the course of the show, so we should see the complete RSF range on these shores quite soon.

Staying with the French, we found **Micro Performance**, the people behind the PolyMIDI 1 sequencer, showing a bizarre MIDI drum set called the Micro Bat. The name comes from the fact that each pad's circumference is batwing-shaped, but dubious aesthetics aside, the system works well, sounded great using a Yamaha TX7 as a voice module, and is very reasonably priced – in France, at least.

Tying in, perversely, with this month's review of their Percuter S electronic drum kit, **Dynacord** unveiled an entirely new system at Frankfurt, with a superbly redesigned basic pad that is as chic as it is distinctive, a clever central stand called the Drum Caddy that does away with the untidy myriad of chrome supports drummers were previously forced to use, and a sophisticated voice unit, the ADD One.

The last-mentioned is still at the prototype stage, but the same needn't be said of the Rhythm Stick, Dynacord's revolutionary pad controller designed to free drummers from the constraints of sitting behind a kit, and at the same time give other musicians the chance to control drum voices in real time on stage. You play the guitar-shaped device by tapping a pair of touch-sensitive pads with your right hand, while selecting voices from a set of eight switches on the 'neck' with your left. The Rhythm Stick is a little tricky to adjust to, but that didn't stop swarms of German musicians getting to grips with it at the front of Dynacord's stand. Soon you'll be able to do the same in your local music shop.

More conventional electronic kits were to be found on the stands of at least two traditional acoustic kit manufacturers. **Pearl's** latest system features cunning electronic hi-hat and cymbal units, while the **Premier Powerpak** is the first electro kit from the established Leicester-based drum company, and should sell for about £700.

Simmons are taking none of this lying down, however, and introduced a number of innovations at Frankfurt to prove the point. The SDS1000, for example, is a new budget electro kit featuring five user-programmable kit memories and five factory ones, four of which feature sampled snare sounds. You can extend the 1000's versatility by adding the new TMI pad-to-MIDI converter, a cut-down version of the existing MTM interface.

The men from St Albans were also showing a new MIDI voice expander called the SDE, a programmable unit capable of generating tuned percussion, bell and gong voices, plus other sounds available soon from a library of pre-programmed ROM cartridges.

Simmons were even showing an electronic drum combo, the SDC200, which differs from most standard amps by offering FX send facilities for each input channel, and specially-designed EQ sections and speaker unit. At last, electronic drum users look like getting an amplification system tailored to their needs from the word go, instead of being adapted from an existing, ill-fitting model.

These were the best demonstrated of the electronic drum products, too, with the ever enthusiastic (and eloquent) Bill Bruford wielding the sticks and US session keyboardman T Lavitz providing sympathetic backing. ►



New Poly 800 II sits atop prototype DSSI sampler and SG1 digital piano on Korg's demo stage; credit card-size ROM packs litter top of versatile piano

► From things you hit to things you strum, and what could be the best MIDI guitar product yet. The **Shadow** system is the work of Hungarian engineer Andras Szalay, who long-standing E&MM readers may remember as the brains behind the MUZIX 81 computer sequencer a few years back. The system builds all the necessary pitch-tracking electronics into a custom hexaphonic pickup that can be fitted to any guitar (acoustic or electric), features an intelligent jack lead capable of transmitting the outgoing information to a MIDI 'black box', and tracks a guitar player's handiwork (string-bending and the rest) as quickly and as accurately as any system we've yet seen. And that black box, by the



Seiko DS250 synth has excellent preset sounds editable via clever LCD-equipped expander, is seen here with easy-to-use MR1000 MIDI sequencer

way, also contains a built-in sequencer, so you can play duets with yourself if the mood takes you. UK importers are Barnes & Mullins, and first shipments should be beginning around May.

MIDI is also starting to be implemented on instruments that aren't really instruments at all. Rack-mounting effects machines whose memories can be accessed via a MIDI keyboard are now almost commonplace, and the next step along this particular road seems to be the MIDI-controllable mixer.

Akai's new MPX820 is one example of this new genre, and offers eight input channels each with three-band EQ, pan, aux send, and level controls, all

of which are programmable. The mixer has 99 onboard memories, all of them selectable via MIDI.

The idea is that you store a different set of mixer settings for each keyboard or drum voice you want to use during recording or live performance, so that as you select a new sound, the EQ, FX balance, stereo position and level alter automatically. Invaluable, and considering the technology that's involved, not too expensive at an RRP of £1299.

British mixer company **AHB** were showing a more sophisticated system based along similar lines. Their new Keymix is a modular network you can buy in stages, starting with an aux send and level module (the KMI, £785) and power supply, adding an identical slave unit (KM2, £725), three-band sweep EQ module (KM3, £410) and remote controller (KMR, £399) as and when you can afford them. The system has MIDI built in as standard, and like the Akai, can drive a MIDI sequencer with patch changes occurring at MIDI song pointers positioned by the user.

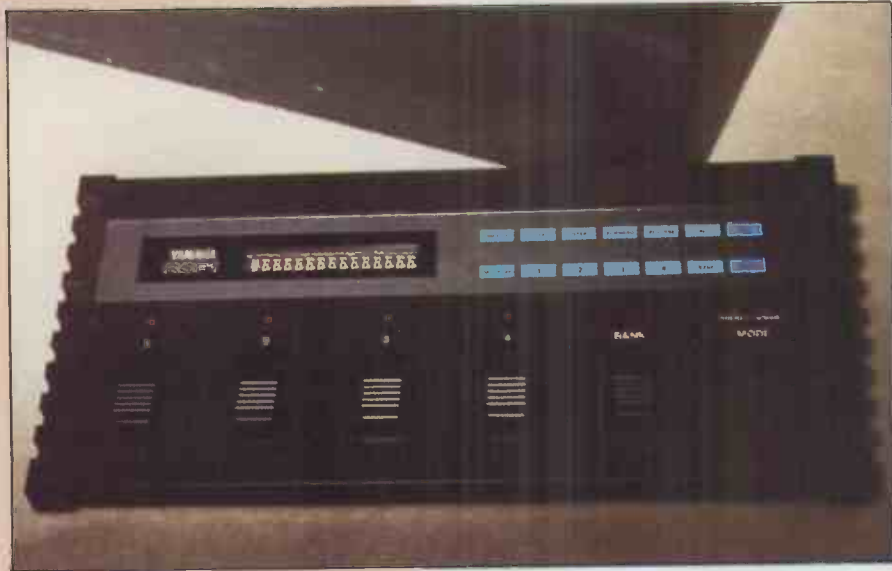
This is the point taken up by **Studiomaster** with their new MIDI-compatible mixer, which is more comprehensive than either of the above, and is angled more toward studio than live use. Definitely a trend to look out for, this, and one we hope to be reporting on in more detail in a future issue of E&MM.

Back in the world of ivory-tinkling, Frankfurt was awash with new electronic pianos, most of them fairly upmarket, 'professional' instruments, and some of them incorporating new voice-generating technology. Much debate surrounded the question of which of these sounded best, but all this seemed a little futile to E&MM's team, bearing in mind an exhibition is never the ideal place in which to judge sound quality.

Anyway, the players as they took the field at Frankfurt included the **Roland RD1000**, which employs a new technique known as Structured/Adaptive Synthesis (SAS for short); the **Technics PX** range, which have optional disk drives for sequence storage and also feature new, computer-assisted sampling/resynthesis technology; the **Ensoniq 10-voice Piano**, which took pride of place on a stand more aesthetically pleasing (but correspondingly more crowded) than its NAMM equivalent; **Yamaha's PF70** and 80, which replace the successful PF10 and 15 and whose sounds are FM-derived; and the **Kawai EP705M** and EP308M, upright and grand versions of some of the most rugged-looking electric pianos around.

Most fascinating of all, though, was **Korg's SG1** piano, which has not only four digitally sampled sound timbres onboard, but also a front-panel slot into which you fit credit card-size ROMs, supplied from a Korg library. Selling price should be similar to the DSSI at around the £2250 mark. And like all the other new-generation pianos, Korg's joanna has MIDI on it so you can use it as a rather elegant, performance-oriented controlling keyboard.

Surrounded by all this activity, it's easy to forget what MIDI was originally designed for – the humble synthesiser. Luckily, the manufacturers haven't forgotten, and what this meant from the musician's point of view is that, in addition to the **Sequential Prophet VS** and **Ensoniq ESQ1** mentioned in the NAMM Report, Frankfurt's exhibition halls also played host to a number of other synth announcements. ►



Yamaha's revolutionary SPX90 effects processor will soon get this remote foot controller, first seen at Frankfurt in prototype form; see elsewhere this issue for preview of master machine

▶ Among these were the arrival of what looks like being Roland's best synth for years, the JX10. This is essentially an expanded version of the JX8P, and is a 12-voice, two-oscillator-per-voice instrument with a 76-key, weighted-action keyboard, a 128-patch memory, an onboard real-time sequencer, and cartridge storage of both sound and sequence data. Like the JX8P, the new machine will be compatible with Roland's optional (but extremely useful) PG800 programmer, and the RRP will be £1900 when the JX10 hits UK shops this coming April.

Other new polysynths making their European debut at Frankfurt included the Akai AX73, a six-voice velocity-sensitive instrument that features

EX20 and the Böhm MIDI Expander, both of which are available in their country of origin in DIY kit formats.

Elsewhere, there were plenty of signs that organ manufacturers are beginning to take synths seriously, and are now busily applying the sound-generating technology they've had at their disposal for years (but which have remained the sole preserve of home organ fans) to less 'domestic' instruments.

Hohner's new CK5000 Compagnon is a case in point. In one fell swoop, it offers enough synthesising and programming potential to satisfy synth players, whilst still providing home keyboard-like facilities so as not to alienate the organ fraternity. This immensely difficult task is eased by the adoption of microprocessor control of all vital functions, and one of the most informative and versatile LCD displays I've ever seen.

Synthesisers aren't quite virgin territory for Elka, but nonetheless, there were plenty who were surprised at the quality of sounds emerging from the Italians' new polysynths, the LX600 and LX900. The former is analogue, the latter digital, but both succeeded in sounding clear as a DX or fat as a Moog when occasion demanded, even if, as was later revealed, their internal wiring was the inevitable prototype jungle.

And that was that. Or rather, it wasn't, but it was all I had time to investigate in any depth, and all I had time to write about when the Music Maker convoy arrived back in Cambridge 12 hours before the issue of E&MM you're holding in your hands went to press.

Deliberately, though not without a little difficulty, I've left the best till last. As so often happens, the Frankfurt innovation that could cause the biggest upheaval was tucked away in a tiny, airless room, concealed from 99% of the people who passed through the Musikmesse's turnstiles.

The innovation in question is the PPG Realizer, an unlikely console-mounted machine with a colour monitor screen at its centre, a selection of different controlling switches dotted around its front panel, and an innocent-looking rack unit sitting on the floor beneath it.

The Realizer has no oscillators, no filters and no envelope shapers. Everything it contains is achieved using software-controlled signal processors, and outputted via digital-to-analogue converters. Thanks to this arrangement, it's possible for the machine to simulate the configuration of virtually any musical instrument, past, present or future. Thus far, PPG's software writers have designed an exact simulation of a Minimoog's sound-generation system (complete with front-panel replica graphics on the monitor screen), and an FM synthesis network similar to – but more complex than – that used by Yamaha in their DX synths.

Because the system is so inherently flexible, it's conceivably possible to route any part of its software to any other, in any direction. Thus you could, for example, stick a Moog filter on the end of the FM system, and shove the whole kaboodle through a detailed network of digital delay and sequencer functions.

The cost of all this innovation is high – somewhere between £30,000 and £40,000 when the Realizer becomes available this Autumn. Personally, I'd willingly swap a house to get hold of one of the first. ■



AHB Keymix system is sophisticated MIDI-based keyboard mixer network, made up of modules you can buy individually; remote control unit is prototype, other devices are available now

onboard software for the manipulation of samples from the S612 and, presumably, the new S900; SIEL's DK700, which functions as both a synth and, with the aid of a 55-patch memory capable of storing MIDI network configurations, a well-specified master keyboard; the Seiko DS250 polysynth, which has a small selection of sparkingly clear preset sounds, easily editable via the optional, LCD-equipped DS310 synth module; the Kawai K3, whose features include a selection of some 33 different digital waveforms, a velocity- and aftertouch-sensitive keyboard, and a built-in stereo chorus; and some new synth modules from the German organ industry in the shape of the Wersi

The Mirage Multi-Sampler



INSTANT ACCESS TO PLAYBACK, SAMPLING AND MIDI PARAMETERS

SAMPLING PERFORMANCE UP TO 16 SAMPLES



LOAD AND SAVE SOUNDS WITH BUILT-IN DISK DRIVE

MIDI IN, OUT AND THRU CONNECTIONS



EXPANSION PORT FOR INPUT SAMPLING FILTER & SEQUENCER EXPANDER CARTRIDGES

HARDWARE FOR 19" RACK MOUNT INCLUDED

... Put it on top of Old Faithful

Synthesis plus digital sampling- the best sounding way to complete your MIDI setup

If you own Old Faithful, or any other MIDI synth, you've got a good sounding, versatile and responsive instrument. So what could be better? Connect a Mirage Multi-Sampler to your MIDI system and see.

Synth voices come alive with character and individuality when doubled with real sampled sounds. Just make one simple MIDI connection and the Mirage Multi-Sampler responds with startling expression to your keyboard's pitch bend, modulation, velocity and pressure sensitivity-even breath control.

The Mirage Multi-Sampler has all the performance and sampling features of the Mirage Digital Sampling Keyboard-without the keyboard. It's a complete eight-voice instrument with a musical range of 5 octaves. There's even an on-board sequencer with overdub and disk storage ability. All this for about the price of a day in the studio¹.

If you want to create your own sounds, the Mirage lets you sample from virtually any source. But whether you're into sampling or not, Ensoniq has an ever-expanding Sound Library of diskettes with the most true-to-life sounds ever heard from an electronic instrument.

For live performance, recording, composing or creating your own sounds, top off your system with the Mirage Multi-Sampler. And breathe some new life into Old Faithful while you're at it. See your authorized Ensoniq dealer today for a complete demonstration.

ENSONIQ Corp, 263 Great Valley Parkway, Malvern, PA 19355
Canada: 6969 Trans Canada Hwy., Suite 123, St. Laurent, Que. H4T 1V8
ENSONIQ Europe, 65 Ave de Stalingrad, 1000 Brussels

1. The Mirage Multi-Sampler retails for \$1395.00 . . . complete.
Mirage, Multi-Sampler and Mirage Digital Sampling Keyboard are trademarks of ENSONIQ Corp.
As far as we know, Old Faithful isn't anyone's trademark.

ensoniq[®]



— EXPAND YOUR 244 —



— OR BUY A 246 —

PLAY ALL DAY



Anyone who has ever owned or used a Tascam 244 Portastudio will know how versatile and easy to use it is.

But we realised that some people want a couple more input channels. Perhaps an easier track assign system. Maybe a couple of effect sends on each channel. How about a two-speed deck with a real-time counter and search-to-cue? Couldn't you switch the dbx off one track only, and why not have an optional remote control as well as the electronic punch-in?

We also realised that we couldn't offer a DIY expansion kit for such major additions, so we brought out a new Portastudio alongside the 244. It's called the 246, and it will only set you back a couple of hundred pounds more than a 244. Not a big price to pay for any recording system with such a specification, let alone a Tascam.



TASCAM
TEAC Professional Division

For information about the full range of Tascam Portastudios and the name of your nearest dealer, please write to: TASCAM, Harman Audio UK Ltd, Mill Street, Slough, Berks SL2 5DD.

TEMPO POPULAR

WEAR IT WELL

At last, E&MM's distinctive new logo is available on top-quality sweatshirts and T-shirts, direct from us at the editorial address. Don't mistake this for inferior promotional clothing; these shirts are beautifully made and superbly printed. There's a choice of colours and you can even decide whether you want the E&MM lettering printed large in the middle of your shirt, or smaller in the top right-hand corner.

Sweatshirts are just £7.45, while T-shirts are a measly £3.45, both prices including VAT and postage & packing. So send your order in now to the Mail Order Department at the address at the front of the magazine, making cheques/POs payable to Music Maker Publications and allowing 28 days for delivery. Alternatively, dial the editorial phone number (it's Cambridge 313722) and order by Access or Visa. Please note that payments from overseas (including Eire) should be made by Bankers Draft in Pounds Sterling.



Please send me: Sweatshirts T-shirts

S(30-34)		
M(34-36)		
L(36-40)		
XL(40-44)		

Large logo Small logo
 Black Navy blue Royal blue

Name

Address

.....

.....

Postcode

Access/Visa* No:

* Delete as appropriate.

...AND LET US PAY
 Get over 7 hours of free recording
 if you buy a Tascam Porta One,
 244, 246, or 234 portastudio before May 31st. 1986!

All you have to do is pop along to your nearest participating Tascam dealer and fill out the claim form when you buy your portastudio — your dealer will then hand you 10 high quality new technology C90 cassettes ABSOLUTELY FREE.

Free cassettes may only be issued if a Play All Day Claim Form has been completed by the purchaser and left with the dealer together with a copy of the receipt. Offer applies only to Tascam Porta One, 244, 246 and 234 portastudios and does not apply to any other products. Only available at participating dealers displaying the Play All Day symbol. Cassettes subject to availability. Offer closes on May 31st 1986.

- | | | | | | | | | | | |
|--|---|---|--|--|--|--|--|--|---|--|
| AVON
Radford Hi Fi
Bristol
0272 44593
The Guitar Workshop
Bristol
0272 742675
Duck Son & Pinker
Bath
0225 65975
London Rock Shop
Bristol
0272 276944
"40433"
Bristol
0272 40433
BERKSHIRE
Guitar Centre
Slough
0753 42720
ABC Music
Slough
0753 822754
BUCKINGHAMSHIRE
Tim Gentle Music
Newport Pagnell
0908 613909
CAMBRIDGE
Slix
Peterborough
0733 52357 | CAMBRIDGE
Cambridge Rock
Cambridge
0223 316091
0272 44593
CNESHIRE
Audio Services
Stockport
0663 24244
Dawsons Music
Warrington
0925 32591
Sounds Great
Cheadle
061 437 4788
CLEVELAND
McKenna Brown
Redcar
0642 483829
CORNWALL
E.T.S.
Truro
0872 79809
E.T.S.
Helston
03265 3801
CUMBRIA
Northern Sounds
Workington
0900 4797 | DERBYSHIRE
Wisher Music
Derby
0332 48156
DEVON
City Music
Torquay
0803 25488
City Music
Plymouth
0752 673166
DOORSET
HATV
Christchurch
0202 473901
ESSEX
Tim Gentle Music
Leigh on Sea
0702 72926
Honky Tonk Music
Southend
0702 553647
GLoucestershire
The Music Village
Chadwell Heath
01 599 4228
Machinehead Music
Harlow
0279 21744 | GREATER MANCHESTER
Formula Sound
Stockport
061 494 5650
A1 Music
Manchester
061 236 0340
N.W. Audio
Bolton
0204 385199
HAMPSHIRE
Whitwams
Winchester
0962 65253
Telecomms
Portsmouth
0705 660006
MERTFORDSHIRE
The Music Village
Barnet
01 440 3449
Unisound
Chatham
0634 44068
NORTH HAMPSHIRE
Session Music
Belfast
0232 238998
Session Music
London
0232 797682
REA Sounds
Cookstown
06487 64057 | Audio Visual Imports
Dublin
0001 782288
Music Maker Ltd
Dublin
0001 743168
Nicholl Bros.
Ballymena
0266 49616
KENT
MStevens & Partners
Bromley
01 460 7299
Music Unlimited
Gravesend
0474 23470
Canterbury Hi Fi
Canterbury
0227 65315
ESE Audio
Gillingham
0534 375421
Unisound
London
0634 44068
Wing Music
Sidcup
01 390 1838
LANCASHIRE
Blackpool Sound Centre
Blackpool
0253 25544 | LEICESTERSHIRE
Carisbro Sound
Leicester
0533 24183
LINCOLN
Stix
Lincoln
0522 43252
CENTRAL LONDON
Soho Soundhouse
01 434 1365
Music Laboratories
01 386 5392
The Turnkey Shop
01 637 1701
OUTER LONDON
Tempo Music
West Ealing
01 567 0212
Gigsounds
Calford
01 690 8621/2
London Rock Shop
NW1
01 267 7851
SSE
NW1
01 387 1262
Unisound
Kilburn
01 624 3900 | Gigsounds
Streatham
01 769 5681
Harrow Music
Harrow
01 427 2250
Turnkey
Brent
01 202 4366
70 Sound
Fulham
01 736 1860
Holiday Music
Leytonstone
01 558 2666
MERSEYSIDE
Frank Hessey
Liverpool
051 236 1418
NORFOLK
Carisbro Sound
Norwich
0603 666891
NORTHUMBRIA
Concert Acoustics
Cramlington
0670 737272
NOTTINGHAMSHIRE
Carisbro Sound
Mansfield
0623 651633 | Carisbro Sound
Nottingham
0602 581888
OXFORDSHIRE
Laughing Gear Music
Oxford
0865 725221
722027
Oxford
0865 722027
SCOTLAND
Holburn Hi Fi
Aberdeen
0224 585713
McCormacks
Glasgow
041 332 6176
James Grant
Glasgow
041 339 3618
Sound Control
Glasgow
041 552 6825
Sound Control
Edinburgh
031 557 3986
James Grant
Edinburgh
031 228 1704
Hamilton Music Centre
Hamilton
0698 283325 | Sound Control
Dunfermline
0383 733853
Sound Control
Kirkcaldy
0592 260293
BHPORSHIRE
Sakop Music
Shrewsbury
0743 64111
SOMERSET
Movement A.V.
Taunton
0823 87994
Music Mill
Yeovil
0935 72232
STAFFORDSHIRE
RTTS
Lichfield
05432 22877
SURREY
ABC Music
Addlestone
0932 40139
ABC Music
Esher
0372 66195
Bootleg
Epsom
03727 24528 | SOUTH YORKSHIRE
Music Ground
Doncaster
0302 843037
Carisbro Sound
Sheffield
0742 64000
WEST YORKSHIRE
JSG Music
Bingley
0274 568843
Erricks Hi Fi
Bradford
0274 309266
KGM Studios SPS
Wakefield
024 371766
WALES
Owen Hi Fi
Colwyn Bay
0492 30982
John Ham
Swansea
0792 50968
Soundwave
Cwmbran
0633 32501
CHANNEL ISLANDS
GUERNSEY
Soundtrack
St Peters Port
0481 22178
JERSEY
Sound Engineering
St Heler
0534 21735
ISLE OF WIGHT
Russells
Newport
0963 523864 | ABC Music
Kingston
01 546 9877
Vision Technology
Croydon
01 681 7539
SUSSEX
The Tape Shop
Brighton
0273 672781
Peter Bonner
Eastbourne
0323 639335
TYNE & WEAR
J.G. Windows
Newcastle upon Tyne
0632 37180
AV Seen & Heard
Newcastle upon Tyne
0632 325736
WEST MIDLANDS
Norman Hi Field
Birmingham
021 622 2323
Jones & Crossland
Birmingham
021 643 4655
WILTSHIRE
Kempster & Son
Swindon
0793 35523 |
|--|---|---|--|--|--|--|--|--|---|--|

WHO WANTS A STEREO DIGITAL REVERB WITH MIDI FOR UNDER £400?



The MIDIVERB from Alesis

At £395 including VAT, you may not believe it, but the MIDIVERB is a top-class device. *So good*, it will impress even the most difficult A&R man. *So quiet*, it will put the average mixing console to shame. *So powerful*, that you will wonder why people even *consider* anything else!

The flexibility is remarkable — 63 programmes in full stereo, everything from plates to massive halls, decay time from 0.2 secs to 20 secs, and nine gated and four reverse room programmes, *so clear*, they will astound you.

Easily interfaced with most mixing desks, instruments and home recording studios, the MIDIVERB can be used stereo in/stereo out or mono in/stereo out. The reverb programmes in the MIDIVERB can be changed rapidly either manually on the unit, or from another MIDI device through any of 16 selectable MIDI channels.

Specifications

Frequency response	20Hz to 10kHz
Dynamic range	80dB Typical
Programmes	63, Preset
Inputs	Stereo & Mono, Phono Jack, 50 Ohms
Outputs	Stereo, Phono Jack, 600 Ohms
Controls	Increment Prog/Midi Decrement Prog/Midi Midi channel select By-pass Mix (on rear)
Midi Connections	Midi In, Midi Through

New Digital Reverb Design

All this has been made possible by a new design approach, borrowed from the most recent trends in computer hardware: RISC Architecture (Reduced Instruction Set Computer). RISC designs provide the programmer with a very small set of possible instructions that execute very quickly as opposed to more complex machines that offer more apparent power but operate slowly. RISC machines are simpler and less expensive and even though at first glance seem to have limited power, they often out-perform their bulkier counterparts.

The MIDIVERB uses an extremely specialised instruction set that runs at 3 million instructions per second, much faster than most systems on the market today.

Contact Sound Technology for your nearest dealer, or send £1 for a demonstration cassette.



sound
technology

Sound Technology Limited,
6, Letchworth Business Centre,
Avenue One, Letchworth,
Hertfordshire SG6 2HR.

Telephone: 0462 675675
Telex: 826967

ALESIS



THE MUSIC SYSTEM

Along with Philip Glass and Terry Riley, Steve Reich is in the vanguard of contemporary American composers. Yet his recent activities – including a concert tour of Britain – have confirmed his music no longer deserves to be called ‘minimalist’. Interview *Simon Trask* Photography *Matthew Vosburgh*

Steve Reich arrived in London at five o'clock on a cold and wet Monday morning. A mere nine hours later, Reich and I were sitting in Room 104 of the Russell Hotel, just around the corner from the Dominion Theatre where Reich and his six-strong group of musicians played to a packed house two days later.

It was Reich's seventh interview of the day, and there was still another one to go. Fortunately, he proved to be both genial and talkative, and whilst the weather outside may have been bleak, inside the mood was pleasantly sunny.

Reich's music falls into the category generally termed 'systems' or 'minimalist'. Or rather, it did but it doesn't any more. As one of contemporary music's most consistent composers, he has carefully nurtured his musical style during a career spanning over 20 years, though the 'minimalist' tag still hangs round his neck.

'Whether I like it or not makes precisely no difference whatsoever', he says nonchalantly. 'It's not something that composers, or any artists, are really involved in. If they are, they're taking the undertaker's job away, because it's his job to make the box. I'd rather leave the options open. I understand that the

E&MM MARCH 1986

term "minimalist" is used, and I think it's convenient to pick up LaMonte Young, Terry Riley, Steve Reich, Philip Glass, John Adams and Arvo Part in one little way. But as a descriptive term, then let's say that after 'Drumming' it becomes a diminuendo in usefulness, by the time you get to 'Tehillim' it's pretty useless, and when you get to 'Desert Music' it becomes humorous.'

Some history. Reich was born in

'Younger composers won't have done what they do without computers; it's unthinkable that computers won't have an effect on composition.'

New York in 1936, and in his early teens, took up the study of Western rudimentary drumming – inspired by bebop drummer Kenny Clarke, whose sense of timing he greatly admired ('effortless, buoyant and executed with the minimum of technique'). Not surprisingly, Reich wanted to be a jazz drummer.

He went on to study Philosophy at Cornell University, playing drums at

weekends. While there, Reich heard African and Balinese music for the first time, music that formed part of the inspiration for his decision to study music composition, under several different tutors, in the years that followed.

At that time (early 60s), all budding American composers had to write serial music, yet Reich found himself at a loss as to how to write anything in the style that was, to his ears, musical. His solution was to repeat the 12-note row over and over again, thus showing an early preference for the repetitive impulses that fuelled his later music.

Some years afterwards, Reich rediscovered African music, and in particular, 'a music made of repeating patterns in what we would call 12/8, posed so that the different patterns' downbeats do not coincide – something not really found in Western music.

'To the music of Africa I owe a great deal, and I would say entirely in the framework of structures. To the music of India I owe precisely nothing...though I do like curry.'

Yet despite his huge debt to the music of the Dark Continent, Reich has rarely used traditional African instruments in his compositions. He views structure as the most 'portable' of musical elements, ▶

wem

there'll be

'IMPACT'

music . . .

300 watt
DRIVERS

. . . . in the city

SONG BIRD 600



SONG BIRD 300



SONG BIRD 200

SONG BIRD

300 to 1000 WATT COMPACTS

HIGH POWERED COMPACT SYSTEMS

SONG BIRD 150 CABARET

A small, but high powered reproducer for use where size and weight are important factors for consideration. Driven by one of the WEM "IMPACT" 8" speakers with handling of 150 watts and treble horn in addition, the CABARET, despite its small size, will give a remarkable performance including adequate response in the bass ranges. £230 Pr.

SONG BIRD 200

A full range reproducer with 10" driver plus treble horn fronted with acoustic lens.

The '200' is capable of great clarity and punch. Do not be misled by the compact size — the "200's" are capable of producing immense volume levels. An excellent P.A. -keyboard reproducer with full dynamic range and a rating of 200 watts per cab. £295 Pr.

SONG BIRD 300

Armed with the 'IMPACT' 300 watt 12" driver — a unit which will out-perform even drivers of great expense and reputation with its free air resonance of 35 Hz and 300 watts RMS handling power.

By virtue of this exceptional driver the SONG BIRD 300 will produce surprising levels of full range power with breathtaking quality and yet is small enough to be easily handled and transported. 6" x 2" treble horn. Acoustic lens. Tough, beautiful, professional SONG BIRD. £340 Pr.

SONG BIRD 600

A beautifully styled, four way 'array' system reproducer with a really high powered, full range response. 300 watt 12" woofer. 10" mid-range driver, two 6" x 2" treble horns and two out riding directional horns provide exceptionally strong and responsive attack levels. £560 Pr.

SONG BIRD 1000

Perhaps not of the same cosmetic appearance as the Compact Song Birds this rugged and multi-braced reproducer comes into its own where high power levels of rich bass and speaker cone area are needed for high power P.A. work, or installation. Four 'IMPACT' 10" drivers with two R.T. 50 horns. £425 Ea.

FOLD BACK WEDGE 200

An absolute essential for bands involved in harmony singing etc. The 200 Wedge is an inexpensive, compact stage monitor with 10", 200 watt driver and treble horn. It has an incredibly flat response feature which makes it capable of extremely high levels of sound before feed-back — even under the most difficult stage conditions. Development angle 45°. Fitted with input and output jacks. £175 Ea. Powered wedge (100 watts MosFet) £250

STANDS AND COVERS
OPTIONAL EXTRA

KEYBOARD COMBOS

SONG BIRD 200 KBD/P.A. COMBO. £297

Basically as the passive SONG BIRD 200 but with rear mounted, 100 watt Mos Fet amplifier. Two input channels with separate Vol. Bass & Treble controls. Four band overall Equaliser. High and Low impedance inputs per channel.

SONG BIRD 300 KBD/P.A. COMBO. £395.

As the normal SONG BIRD 300 in appearance but with rear mounted amplifier system. Six inputs on three channels (Hi + Lo Zi Vol. Treble. Bass per channel. Four Band Equaliser. Reverb. Send & Return Master Vol. 150 watts. Will drive another, passive speaker cab if required.

SOUNDMAN 200 & 300 watt Mos Fets.

10 inputs on 5 channels. 4 band E.Q. Reverb. 200 £370 300 £460 300 Mono Slave £350 600 Stereo Slave £495

SOUNDMAN MOS FET P.A. HEADS



SOUNDMAN
300 & 600
SLAVES

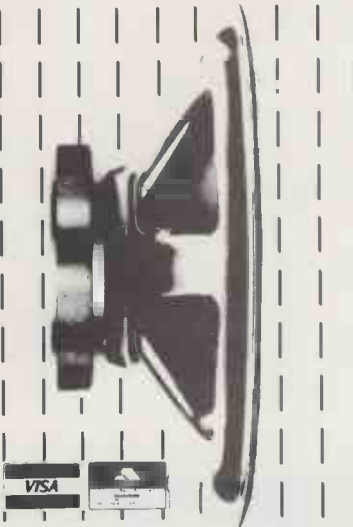
IMPACT

"IMPACT" Drivers. Freq. ranges from 35-4000 Hz. Polyurethane cone rim for extra bass. Re-active suspension. Ram air cooling. The success element behind the legendary Song Bird reproducers. (Not intended for use in rock guitar applications).

5" 70w. £22
8" 150w. £32
10" 300w. £36
12" 300w. £47

CATALOGUES ON REQUEST—TRADE-EXPORT-USER
UNIT 119. 62 TRITTON ROAD LONDON SE21 8DE 01-761 6568

wem



'IMPACT 300' POWER DRIVERS

The world's finest power drivers from WEM

W.E.M. 'IMPACT' SERIES

Up to 300 watts R.M.S. power handling. Exceptionally good bass delivery. Ranges from 35KHz-5KHz. Impedance 8 ohms. Recommended uses: P.A. Kbd, Disco, Electronic drums, Studio installation. Not recommended for Rock Guitar. As used exclusively in the WEM SONG BIRD Reproducers

	Watts	£
5"	70	22
8"	150	32
10"	300	36
12"	300	47

Please add £2 per speaker post.

celestion
international



DISTRIBUTOR

CELESTION. A speaker manufacturer of the highest international reputation. WEM distribution ensures prompt delivery of these exceptional drivers. Recommended for P.A. Kbd. Rock Guitar. Bin loading. General instruments. Bass Guitar etc. Impedance 8 or 16 ohms.

	Watts	£
G10"B	100	51
G12"	50	34
G12"H	100	46
S/Winder 12"	150	77
G15"	100	77
G15"	200	90
S/Winder 15"	250	139
H.F. 50 Horn	50	40
R.T. 50	50	46
DCR 100 Horn driver		63
R.H. 50 Horn flare		66

Please add £2 post per unit.

CATALOGUES ON REQUEST - USER - TRADE - EXPORT - INSTALLER
UNIT 119, 62 TRITTON ROAD,
LONDON SE21 8DE.
01-761 6568

► and where non-Western musics are concerned, it's the structure, rather than specific sounds, melodies or harmonies, that Reich has always been interested in learning from.

'The idea of patterns in 12/8 superimposed so that their downbeats don't coincide could come from collaged chop-ups of Richard Nixon's resignation speech, or they could be African drum rhythms, or they could be electric guitars. It doesn't matter what the sound is. The great virtue and the great depth of a structure lies in its impersonality; it's there to be filled with your personality. That's why I don't like to use African bells or Balinese scales or whatever.'

Moving back in time, we find the young Reich being inspired by the unlikely figure of John Coltrane, who the composer remembers as 'making a great deal of music on a limited number of harmonies - one or two harmonies for half an hour's worth of music; it was magnificent.'

The contrast between Coltrane's spontaneous outpourings and the 'paper music' (most of which never got played anyway) of serialist students made a strong impact on Reich, and he formed his own ensemble in 1966.

More significant, though, was the friendship Reich struck up with fellow composer Terry Riley in San Francisco. He had a hand in preparing and performing Riley's seminal 'In C' in 1964, and Reich readily acknowledges the importance of the piece in 'clarifying the mix of John Coltrane, Junior Walker, rock 'n' roll, African music and tape loops.'

A bizarre mix, undoubtedly, but one which helped create Reich's first 'official' piece ('It's Gonna Rain') in early '65. It was a tape loop piece that used recordings of a black preacher ranting about the Flood. Reich set the loop going on two tape recorders simultaneously, only to discover that the recorders ran at slightly different speeds. The result was what Reich came to adopt as the 'phase shifting' technique, where two identical parts move slowly in and out of sync with one another.

The composer subsequently transferred this technique from electronics to unassisted human performers. Thus 'It's Gonna Rain' led to 'Piano Phase', and 'Pulse Music' led to 'Four Organs' and 'Phase Patterns'. The epic 'Drumming' (1971), all one-and-a-half hours of it, marks the culmination of Reich's first period.

Whereas the earlier works were concerned with letting a process run its course, those after 'Drumming' saw Reich gaining more and more control over his material. The rate of change in his works has gradually speeded up, and nowadays there's a more definite structure. Compare the recent 'Desert Music' (1983) and 'Sextet' (1985) with 'Music For Eighteen Musicians' (1976), let alone earlier works, and it's clear Reich is not a composer who stands still for anyone - hence the irrelevance of the 'minimalist' tag.

But whatever he's done, Reich has managed to stay consistently ahead of his time - especially in his study of non-Western music, something that now fascinates any number of average, run-of-the-mill rock stars. Has the upsurge

of interest in 'other music' surprised him?

'I thought that it would happen. I thought it would come from the classical side but it's actually come more from the pop side. You know, nothing is good or bad - it's the musician that makes it so. There's no formula for good music.'

'Undoubtedly, 90 per cent of what's done in the name of "world music" is trash, and that's perfectly normal, that's business as usual. It takes a David Byrne to do something that's musically worthwhile - and that's always the bottom line. I'm glad to see that the musical vocabulary has been enriched, because there are talented people who come along and make something out of it.'

Mention of David Byrne brings us nicely to the question of which pop musicians Reich admires, if any.

'Well, I'm not as well informed as I could be, so basically I'm looking back a few years - I really haven't caught up! I've heard some Talking Heads things, and the Eno/David Byrne *My Life in the Bush of Ghosts* reminded me of some early tape pieces of mine.'

'But there aren't too many groups I could reel off. I simply don't spend the time listening, though perhaps I should - I'd undoubtedly get something out of it. But I'm probably still back in the Eno, Bowie, Talking Heads period. I know there's lots and lots of stuff past then. I've been beginning to hear some of the younger people on the 'art-rock' scene in New York.'

He mentions names like Elliot Sharp and Scott Johnson, who I haven't heard of, and I mention names like Bill Laswell and Anton Fier, who he hasn't heard of. There's some mental note-taking on both sides.

How about Herbie Hancock? 'Well, that's hardly what we're talking about at all. I would call that highly commercial music. I think Herbie Hancock is a very facile maker of money.'

Well, OK, he did have a particularly commercial period, but... Time is limited, and there isn't long enough to follow such things up. Instead, we reach the time to talk technology, and Reich's attitude towards it. Like so many other modern composers, Reich sees little point sticking to the classical music rules and steering clear of electronics. He uses synthesisers regularly, even though he sees them mainly as instruments of convenience, and confines their use to organ and brass sounds.

In fact, Reich's experience with electronic devices goes back to the phase-shifting pulse gate, made specially for Reich in 1969. It was a primitive construction that allowed up to 12 monophonic inputs (acoustic or electronic) to be delayed individually, effectively allowing a continuous phase-shift controllable in real-time. But Reich soon abandoned the device for two reasons: massive unreliability, and what he saw as a stiff, unmusical perfection.

Reich admits that bad experience has caused him to limit his dependence on synth technology, but I protest that such experiences are less likely these days, thanks to developing technology.

'Well, that bad experience repeated

▶ itself last night at Stuttgart with a screwed-up DX7. That bad experience is part of electronics, and part of why I don't like it. As a touring musician there's always the horror of opening the box and saying: "is it OK? No!"

"To go through that when time is short and the audience is about to arrive is just what you don't need. With a marimba, you open up the case, choose your mallets and you're ready. It's very reliable, and that's kind of a comfort.

"I find that with the time spent in a hall preparing for any given concert, the more electronics are used, the more of that time they'll eat up – and cause a nervous and diffused psychological state amongst the musicians because it's out of their control."

What about the sonic potential of synths, the sheer variety of sounds they make available?

"That is also a strange situation. For instance, if you're a composer and you write something down and you say 'synthesiser', you know and I know that if I were to specify 'Farfisa Mini Compact' today, it would be impossible for anyone to find it. And whereas you can find a DX7 everywhere today, you know that in a few years the DX7 will be a laughing stock, a primitive attempt at what we will then consider to be the state-of-the-art synthesiser.

"In 'Sextet' I actually like the sound of these Casio 202s, but they're already extinct. I prefer their sound to the DX7, but I know the DX7 is around so I've had to go both ways: I brought over the Casios and if they break down, we've got a DX7 where I can put a cartridge in and it'll sound reasonably the same as the Casios.

"So the net effect is that I don't take synths very seriously. They're all ships that pass in the night, to be replaced by the next model."

The crux of the matter is that Reich's music ultimately functions through the written score, a lasting statement to be recreated in the form it was originally conceived in. Reich contrasts this state of affairs with the rock or jazz musician, where the final statement lies in the recorded performance. That's an oversimplification, I'd say, but there's food for thought there, nonetheless.

Time to change tack slightly. I ask Reich if he's considered using sequencers to compose, record or perform.

"I bought the Roland Microcomposer when it first came out, and I thought: "Oh boy, this is going to be a fun toy". I used it for about 20 minutes and then I put it back on top of the shelf, where it's stayed ever since. Similarly with one of their midrange drum machines."

But there's some sophisticated equipment around nowadays...

"Yeah, I know, I know. I think a lot of it's to do with age. I'm 49 years old and I'm computer dumb. If I was your age..." (interviewer feels distinctly young, for once) "...I mean, my son is seven and a half..." (interviewer feels old again) "...and I think that these things will become important, particularly in composition. I think there's a lot that you can do in terms of coming up with things that you might not otherwise come up with, or stimulating yourself to write something different later which came out of that kind of thinking. Certainly, I never

would have done what I did without tape loops. And for a younger generation, they'll never do what they would have done without computers. It's unthinkable that the computer won't have a massive influence on composition."

Currently, Reich's method of composition revolves primarily around a time-honoured practice for musicians all over the world: sitting at the piano. He also has a marimba and a vibraphone in his studio (percussive instruments have always been a Reich favourite), and uses a small Casio keyboard to simulate instruments he doesn't play. When things start to get a bit hairy contrapuntally, he'll use a multitrack tape recorder to overdub parts.

"I was interested in getting a Synclavier at one time", he says, "when I thought I could use it as a sampling

'Novelty can be praised so highly that you can pass over a group of techniques and say: "Well, that's been done", which isn't always true.'

device for orchestration, with a real clarinet and a real oboe. But besides the fact that it would be \$80,000 to buy, it would also take a lot of time for that sort of orchestration to happen. I could call Mort Silver to come down in that time, and overdub clarinet over flute or flute over clarinet, and decide which it has to be. And I'll also find out what the fingering is. But as I say, it's generational, it's personal."

If anything, Reich's music has been moving towards traditional orchestral forces, beginning with his 'Octet' of 1979, and his next two commissions are both for symphony orchestras. But his musical thought seems to follow two strands, because at the same time there have been the Vermont and New York Counterpoints, both intended for a solo performer playing against ten pre-recorded parts on tape. This is an approach Reich intends to stay with, and he has plans for an 'electric counterpoint' to be played by guitarist Pat Metheny, with a certain number of guitar parts on tape and one live. I should have known better, but I asked Reich if the Synclavier with guitar interface (which Metheny has used) would figure in the piece.

"What I want to do is write a piece so that other people can do it. On the other hand, I want to use more than just amplification. I'd like to use the kind of effects that are commonly available. Again, I don't want to get into the extreme hi-tech end of it, because when you've got the situation of a written score, you're stuck with person A and person B and nobody else can do it. The electric guitar is like the *lingua franca* of the late 20th Century, and to write a piece which ends up in the closet because it's attached to one little piece of technology would be kind of foolish. There are plenty of effects that are very common, so I'll go in that direction.

"I'm trying to keep a balance between writing for the orchestra, which is genuinely interesting if I don't have to



do it year in year out, and writing smaller pieces. Not knowing anything about the guitar, I just know the piece is going to be a good kick in the right direction, because it's going to force me to learn some things I don't know yet.

"I'm now going back to a lot of the earlier techniques, and trying to develop them in the light of wider harmonic possibilities and wider orchestral ones.

"When I did 'It's Gonna Rain' I figured for a while that was that: things against themselves going out of phase. It took almost a year for me to realise that maybe I could do something else in that area.

"We live in a time when novelty can be praised so highly that you can pass over a group of techniques and say: "well, that's been done". But the sonata-allegro form yielded literally hundreds of pieces of music, all somewhat different; in the hands of the right people, it yielded a great deal of fruit."

And in the hands of the right people, contemporary music will continue to yield fruit, too. 'Minimalism is long dead', says Reich with some relish. 'Long live Steve Reich', say I, with even more. ■

MAD MARCH SALE!

**END OF YEAR CLEARANCE
ONE MONTH ONLY!**

**NEW·EX DEMO·EX HIRE
EVERYTHING MUST GO!**

- STACKS OF RACKS
 - DOZENS OF DESKS
 - MASSES OF:
 - TAPE MACHINES
 - MICROPHONES
 - PORTASTUDIOS
 - PILES OF PERIPHERALS
- All at silly season prices!*

- MOUNTAINS OF MIXERS
- ROOMFULS OF:
 - REVERBS
 - COMPS
 - LIMITERS
 - GATES
 - DIG DELAYS
- MULTITUDE OF MONITORS
- NUMEROUS NOISE REDUCERS

Check out our other depts:

- GUITARS/AMPS
- KEYBOARDS/HI-TECH
- DRUMS
- TRAD INSTRUMENTS

**Phone or drop in for your
MARCH MEGADEAL!**

4-8 SMALLBROOK QUEENSWAY
BIRMINGHAM B5 4EN

JONES & CROSSLAND

J&C

PHONE 021-643 4655/7

music unlimited

Checklist

Our unique buyer's guide expands to incorporate sampling keyboards, modules and delays for the first time.

When we started Checklist last year, its purpose was to boldly go where no musical instrument price guide had gone before, to seek out new product lines and price categories, to give basic specifications for all those lines, and to fearlessly state the opinions of those that had experienced them first-hand – E&MM's team of instrument reviewers.

It's obvious from reader response that Checklist has succeeded not only in achieving those objectives, but also in becoming an indispensable reference section for modern musicians all over the country – and beyond. A hi-tech music equivalent to 'Glass' Guide', if you like.

In the time that's lapsed since the listing's inception, however, one new product area in particular has been increasingly active – and promises to become even more so over the next 12 months. That area, in case you hadn't guessed, is sound-sampling.

When Checklist began, sampling was the preserve of a few top-end computer music systems such as the Fairlight, PPG and Synclavier, and an even smaller number of rudimentary programs for home computers, which costed very little but offered no more than a basic, not terribly musical intro-

duction to the world of sampling.

Nowadays, the gap between those two extremes is starting to be filled, a year after the introduction of the Ensoniq Mirage-taught everybody that it should be done and, more importantly, that it could be done.

There are three formats that today's 'professional' sampling machines can take. The first is the sampling keyboard, as exemplified by the Mirage and the many instruments that look set to follow in its footsteps, though not necessarily in its shadow. Sampling keyboards contain all the hardware and software necessary to convert outside sounds into digital data, store that data, and make it to some degree editable by the user. They also contain a keyboard of some description from which you can control the stored sample's pitch, and on all the machines currently available, this keyboard is MIDI-compatible.

The second format is the sampling module, essentially the mechanics of a sampling keyboard, but without the keyboard. These MIDI modules – Akai's S612 was the first – are useful in that if you already have a MIDI keyboard, you don't have to waste money on another set of ivories that you don't really need.

The third format is the sampling delay, as typified by the Korg SDD2000.

These are outboard effects units – usually rack-mounting, like the modules – whose digital delay circuitry has been adapted to include a 'freeze' function to store a particular sound in memory until power-down. The delays listed below all feature some means by which the pitch of this sound can be controlled from a keyboard (usually just one note at a time), a process that's achieved either electronically via a Control Voltage system, or through a pitch-follower that derives the controlling pitch from a synth's audio output. We've omitted those sampling delays (Boss DE200, DOD RSD3600 and so on) whose 'freeze' functions are not directly interfaced with keyboards, even though many of these offer some form of external control in the shape of drum triggering facilities.

Also conspicuous by their absence are those computer-based systems (Fairlight and the rest) whose complexity and range of other, non-sampling facilities keeps them out of this edition of Checklist, and the latest generation of 'fun' samplers like Yamaha's VSS100 and the Casio SK1, both of which retail for well under £200. These are the descendants of the aforementioned home micro programs, and will be more than adequately covered elsewhere in E&MM during the coming months.

In all other respects, this Checklist is no different from any other edition in its layout and coverage – though the perceptive amongst you will realise that, now that we have four categories of instruments for our price guide, each one will be listed three times a year instead of the previous four. A small price to pay, we feel.

SAMPLING KEYBOARDS

E-MU SYSTEMS

Emulator II – £7250 Eight-voice, eight-bit

sampling system; five-octave velocity-sensitive keyboard, split and layering facilities, analogue filtering and LFO, disk storage. **+** Superlative sound quality, maximum 17-second sample length, onboard sequencer, MIDI compatibility, ease of use in all areas especially looping; **-** long loading times, poor keyboard; **■** great improvement on original Emulator, shielded from obsol-

escence by continued updating on E-mu's part – latest mods include hard disk and CD data storage options.

ENSONIQ

Mirage – £1295 Eight-note polyphonic sound-sampling keyboard; built-in 3.5" disk drive,





second maximum sample time at 32kHz bandwidth, built-in 2.8" quick-disk storage. *To be reviewed.*

S50 – £TBA 16-voice, five-octave sound-sampling keyboard; 12-bit sampling, built-in 3.5" disk drive, dual and split facilities, 17.5-second sample time at 32kHz bandwidth. *To be reviewed.*

SEQUENTIAL

Prophet 2000 Sampling Keyboard – £1995 Eight-note polyphonic sound-sampling keyboard; built-in 3.5" disk drive, analogue synth section and arpeggiator; five-octave, touch-sensitive keyboard with split/layer

KURZWEIL

250 – £10,995-£18,035 Twelve-voice, disk-based sampling system; 88-note velocity-sensitive weighted keyboard, split facility. **+** Excellent sound quality thanks to unique 'Contoured Sound Modelling' system, comprehensive interfacing, onboard sequencer and chorus, 12 channel outputs; **+** user-sampling requires (expensive) addition of Apple Macintosh computer; **+** after all the press-release hype, the Kurzweil delivers the goods, but elements of its design could be a lot more cost-effective.



ROLAND

S10 – £TBA Eight-voice, four octave sound-sampling keyboard; 12-bit sampling, four-



DON'T
miss an issue



There's nothing worse than rushing round to your local newsagent, hard-earned £1.20 in hand, only to find that a load of other musicians have beaten you to the store's allocation of E&MMs. You scour the bookshelves for hours, you ask the girl behind the counter if there are any at the back of the shop, you even try the Swedish magazine importer round the corner – all to no avail.

The reason for this is simple. Only one musicians' magazine has been looking at music technology thoroughly, accurately and objectively for over four years. Only one musicians' magazine has the reputation for carrying the most authoritative appraisals of new music hardware and software. And only one musicians' magazine has consistently inquiring, informative interviews with the people that are applying new technology to today's music. That magazine is the one you're holding in your hands now, but as anyone who's lived through the above story will know, getting it there isn't always that simple.

But fear not. You can save yourself this monthly agony by subscribing to E&MM direct. That way, you stand a good chance of getting each month's issue in your hands before it even reaches the bookshelves, let alone disappears from them again. So say goodbye to the newsagent Grand Prix: clip the coupon now.

Please send me the next 12 issues of E&MM, beginning with theissue. I enclose a cheque/postal order/bankers' draft* for £15.50/£16.20/£23.50/£37.50*, made payable to Music Maker Publications.

My name is

My address is

.....Postcode.....

Send to Mail Order Department, E&MM, Alexander House, 1 Milton Road, Cambridge CB4 1UY.

UK & Eire £15.50; Europe & Overseas (surface mail) £16.20; Europe (airmail) £23.50; Overseas (airmail) £37.50. Payment from overseas subscribers (including Eire) should be covered by a bankers' draft in pounds sterling.

*Please delete as applicable

options, full MIDI compatibility. **+** Incredible sound quality for price, looping and editing facilities are comprehensive and user-friendly, unsurpassed MIDI spec includes transfer of samples; **■** synth section doesn't exactly live up to Prophet ancestry, though it's still useful, arpeggiator is waste of space; **■** a welcome addition to the world of low-cost sampling machines, sets the standard for all of them, and like Emulator, has a whole host of updates soon to be unveiled by manufacturer to maintain its competitiveness.

SAMPLING MODULES

AKAI

S612 – £749; MD280 disk drive – £199 Six-voice, 12-bit rack-mounting polyphonic sampler; velocity-sensitive over MIDI. **+** Excellent sound quality for the money, ease of use, unique 'alternating' mode provides successful alternative to conventional looping; **■** requires MD280 disk drive (at additional cost) to make it useful, only one sample per side of disk; **■** a fine introduction to sampling, the first machine without a built-in keyboard to save you money if you already have a MIDI controlling instrument. **S900 – £599** Eight-voice, 12-bit rack-mounting sampler; velocity-sensitive over MIDI, built-in 3.5" disk drive, six-octave range, multi-sampling, maximum 48-second sample time, extra facilities include software for eight-voice harmonic sound-generation. Available this Spring. To be reviewed.

BIT

Sampling Module – £TBA Twelve-bit polyphonic sampler, eight-second maximum sample time, velocity-sensitive over MIDI, built-in analogue filtering section and VCA. To be reviewed.

ENSONIQ

Sampling Expander – £TBA Modular version of Mirage, details as above. To be reviewed.

SEQUENTIAL

Prophet 2002 Expander – £TBA Modular version of Prophet 2000, details as above. To be reviewed.

SAMPLING DELAYS

BEL

BD240 – £TBA Monophonic sampling delay; maximum 24-second sample time with four six-second cards (optional) at 18kHz bandwidth. To be reviewed.

BOSS

RSD10 – £200 Monophonic sampling delay; maximum two-second sample time, auto-triggering and layering facilities. **+** Very

cheap, pitch-tracking system means you're not confined to 1V/octave synths (even a digital poly should do the trick), sound quality reasonable; **■** tape interface permits audio – not digital – storage of samples; **■** a fitting complement to Boss' Micro Rack series, and probably the system's best unit yet: four-octave pitch range is widest in its class.

KORG

SDD2000 Sampling Delay – £699 Digital delay with MIDI control over monophonic sound sample; one-octave range at full frequency response, three octaves at reduced bandwidth. **+** The cheapest MIDI sampler around, decent sound quality, added bonus of versatile delay section; **■** limited editing facilities betray machine's DDL origins, no sample storage; **■** still unbeatable almost a year after it was unveiled, sampling on its own would be reason enough to fork out the money, but MIDI and DDL put icing on the cake.

VESTA KOZO

DIG420 – £330 Monophonic sampling delay; maximum delay time one second, three-octave range. **+** Controllable from any CV/Gate synthesiser, reasonable sound quality, cheap; **■** again, no sample storage, lack of editing facilities compared to machines designed to be samplers above all else; **■** a worthy contender from a company with a growing reputation for delivering facility-laden outboard gear at near-giveaway prices. **■**

ARTHUR LORDS

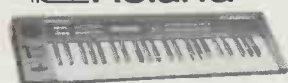
PROFESSIONAL KEYBOARDS

It is our policy to be as competitive as possible on all our prices and in most circumstances we can better, or match any genuine advertised price.

Roland

SYNTHESIZERS

Alpha Juno 1 in stock. New Alpha Juno 2 touch responsive polysynth due in soon. Juno 106 in stock, low price. JX8P, now only £1049. JX-3P, one only, £645 inc. stand. HS60, Juno 106 with speakers, £799



YAMAHA CASIO



DX21 and DX100 in stock. New DX27 in stock now (hopefully). DX9, one only, £545 inc. stand & headphones. CS01, £115 inc. adaptor & breath controller

CZ101£295 CZ5000£795
CZ1000£445 CT6500£695
CZ3000£595

ELECTRIC PIANOS

Roland – full range always in stock
Yamaha YPR6£299
Yamaha YPR8£399
Yamaha PF70 & PF80NEW
Yamaha PF15 – one only£795 inc stand
Bentley EP6£699

DRUM MACHINES

Boss DR110£125
Yamaha RX21£225
Yamaha RX21LIn Stock
Viscount R64 (preset)£270
Roland TR707In Stock
Roland TR727In Stock
Roland TR505In Stock
Casio RZ-1Coming Soon
Technics SY-DP50£575



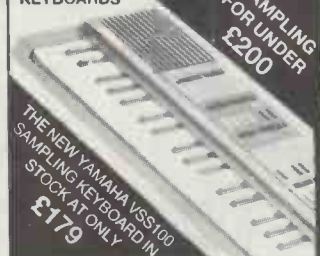
SEQUENCERS

Casio SZ1£245
Roland MSQ100£425

WEM HIGH POWERED SOUND SYSTEMS

The new Songbird 150 watt combo with built-in 4 band graphic now in stock.
Songbird 100 watt combo £270

KEYBOARDS



The complete range of Yamaha, Casio & Technics keyboards all at the lowest prices in the UK

SPECIAL OFFERS

Yamaha PS400, one only £129 inc. adaptor
Yamaha PS35, one only, £299 inc. stand, adaptor & headphones
Casio CT6000 £545

3/5 KINGS RD SHALFORD Nr. GUILDFORD
SURREY GU4 8JU Tel Guildford (0483) 570088

We run a fast and efficient
MAIL ORDER SERVICE
Access & Barclaycard welcome

2

Time Machine

SOUND ENGINEERING

of Devon

ANNOUNCE AN EXCITING NEW RANGE OF STUDIO QUALITY PROCESSORS, AMPLIFIERS AND ANCILLARIES, IN STACKABLE 8½" CASES 1U HIGH.

DI COMPRESSION GATE
Sophisticated signal conditioner combining the functions of NOISE GATE, COMPRESSOR & DIRECT INJECT BOX. Minimum of controls for maximum ease of operation. Musical performance and strappable for stereo operation. 4-LED display of gain reduction and tricolour indication of Gate status.

ACTIVATOR
Psychacoustic enhancer offers performance rivaling that of £400 units yet is easier to use, with sophisticated filtering, semi-automatic operation and an 'intelligent' display.

MICROAMP
Compact, stereo, power amplifier with the reliability and superb performance of MOSFET technology. 30 Watts rms per channel into 8Ω or bridgable for 60W mono. True clip indication and soft limiting.

PSU
The tidy answer to power supply problems. Housed in a 13A plug, this supplies ±15V at 200mA per rail for powering TIME MACHINE processors. Supplied with a sensible 2 metre cable terminated in a 3-pin DIN plug (regulated voltage).



KIT £79 BUILT £112



KIT £87 BUILT £130



KIT £120 BUILT £155



KIT £24

COMING SOON: LEVELLOR MULTIBAND COMPRESSOR PLUS TIME MACHINE ONE REVERB/DELAY/HARMONISER

All TIME MACHINE products have attractively styled steel cases bristling with inputs and outputs, balanced and unbalanced, have knobs you can get your fingers between with metal shafts that don't break as soon as you look at them, offer remarkable specifications at affordable prices are made in Britain and have manuals written in clear English. Need we say more? If so send a decent size SAE to:

TIME MACHINE (HSR), Abbotsford, Deer Park Avenue, Teignmouth, Devon TQ14 9LJ. Tel: 06267 2353

Cheques payable to 'TIME MACHINE'. Please allow 3 to 21 days for despatch. All prices include VAT, postage and packing.

FINAL SCORE

Not content with producing one of the best sequencing packages around, German company Steinberg Research have developed a scorewriting program to go with it. Does it maintain the standard? *Simon Trask*

For some reason, music software houses have been falling over themselves to produce scorewriting programs for the Commodore 64. I don't quite know why this is, because the poor C64 is rather slow and (in contemporary terms) definitely short on memory. But this hasn't stopped Joreth, JMS

programs is getting on for three minutes, but you'll be pleased to know Steinberg will soon be bringing out the two programs in EPROM format à la the JMS Scorewriter, which should speed things up no end.

Once both programs are loaded you can switch between the two in a mere couple of seconds, which means you can finish recording a sequence and see the first few bars up on screen in an instant.

What you can't do is listen to your music

your piece of music to the printed page, better make sure it isn't a Genesis-like 25-minute epic.

The advantages of having TNS resident in memory together with the sequencer are many, because TNS does more than just print out your music. Lurking behind that innocent exterior is a comprehensive score-based step-time editor, which allows you to delete notes, add them, and alter the pitch and duration of existing notes; these alterations don't just affect the score, but the actual data held in memory.

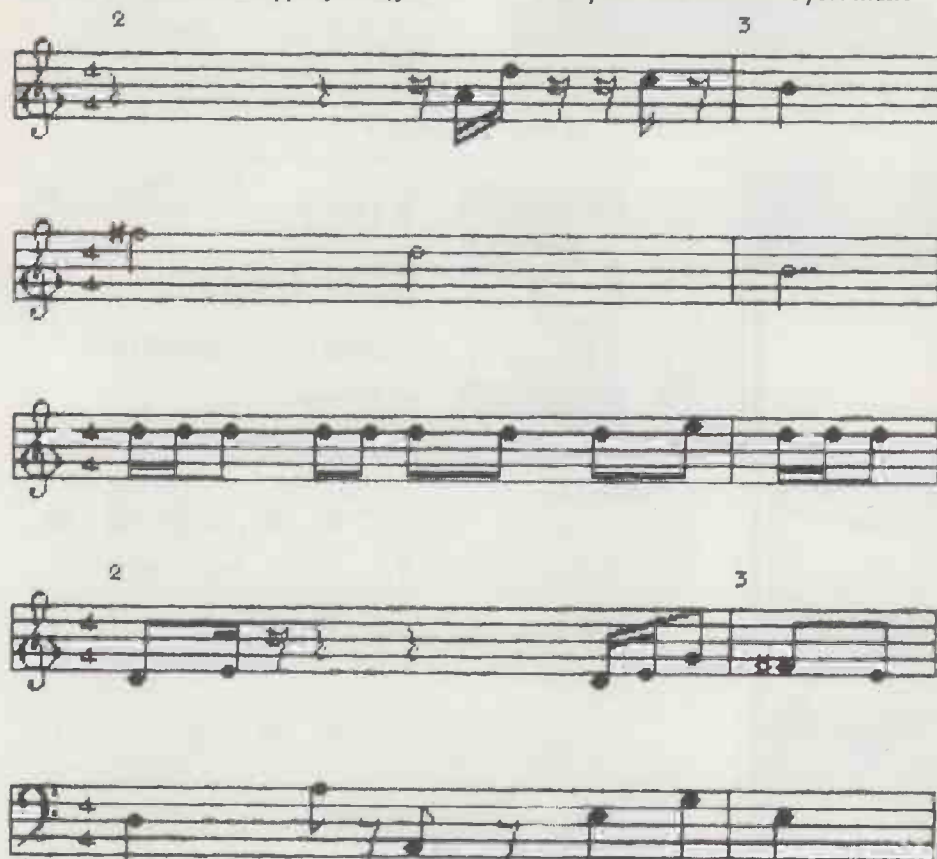
With a wide range of note durations (as with the sequencer, down to 64th notes and taking in triplets along the way) and the ability to insert or delete any note that can be fitted within the range of the staves and leger lines, you can do quite a lot to mess up your perfectly executed recordings.

For those wondering if you can actually compose music from scratch onto the score display and then hear it played in the sequencer program, the answer is you can – though this seems almost incidental to the TNS design.

TNS has two displays: the first is a colourful configuration page where you set up parameters and assign tracks to staves, while the second is the actual music display and editing page. Three staves can be displayed on screen at any given time, though you can define a total of 24 staves via the configuration page. As Pro 16 gives you a maximum of 16 tracks, the extra number of staves allows you some leeway if you're using combined staves (treble and bass clefs on a piano score, say).

Only the top three staves in the configuration page's list can be displayed, but you can rotate through the total number of staves one at a time, so that any adjacent trio of staves can be brought into those top three positions.

You can scroll through the display in either direction by the bar or crotchet/quaver, and a maximum of four bars per staff can be displayed on a single screen with note values of a crotchet or longer. The spacing expands to accommodate shorter note values, so the display is always uncluttered and easy to read.



and Passport Designs from incorporating music printing programs into their Commodore software. Now, against the backdrop of a fairly competitive market, Steinberg Research have unveiled their scorewriting model.

It's called TNS (for The Note System), and it has to be loaded from within the company's Pro 16 sequencer, with at least one track of the sequencer already recorded. The combined loading time of these

and watch it scrolling by at the same time: in fact, the music display doesn't scroll at all. From the Configuration page of TNS you can define the bar from which you want the display to start, though what's a pity is that the music playback won't follow suit when you go back into the sequencer.

A further (inevitable) setback to having TNS in memory is that you lose space for storing your musical meanderings – over a third of it, to be exact. If you want to commit

Both display and printout are commendably clear, with just a couple of points that I reckon need sorting out: notes a semitone or tone apart in a chord should appear on opposite sides of the stem, and accidentals which aren't part of the key signature should only apply for the bar they're in.

The global parameters on the configuration page allow you to choose which bar the music display should begin from, the time signature of the music (though I couldn't get this to go beyond 4/4 with a sequence recorded in 7/4; a bug, perhaps?), whether pairs of staves are linked visually, and whether stave lines are dotted or continuous.

TNS can only ever print out your currently selected sequence, and you have to go back

indication, the nature of this depends on whether the chosen key signature is sharp or flat, while alternative sharp and flat versions of C major and A minor have been included (useful for correctly notating modulations in one direction or the other).

The release, legato and staccato features allow you to tidy up the rhythmic details of your score. Both release and staccato extend the duration of a note, with staccato working on very short note values. Legato, on the other hand, allows you to get rid of any slight overlapping of notes.

Finally, you can choose a range and a register (within limits) for each stave by setting upper and lower split-points. In fact, you have to do this (with some care) if you're to see your music without lots of diagonal lines through the staves indicating 'out of range'. The manual explains this all-important but really quite confusing area with woeful inadequacy, and a lot of people might just give up. Shame that such a silly

want to work in. It would also be useful if there was some guide to leger lines, and if you should accidentally place one note on top of another, there's no way of deleting or moving them short of returning to the sequencer and punching them out.

The program has a very annoying habit of redrawing the screen each time you make a change to the score, regardless of whether or not that change requires a large-scale adjustment. This takes at least three or four seconds and can slow you down a fair bit if you've a lot of adjustments to make.

TNS doesn't allow you to add anything to the music display, such as tempo markings, performance indications or lyrics: you have to add them yourself (by hand, horror of horrors) once the score is printed out.

Whatever you do, don't expect this software to print out your magnum opus in a couple of minutes – or even ten minutes. It actually takes 14 minutes to print out three screen's worth of score; I'll leave you to work out how that accords with your own music.

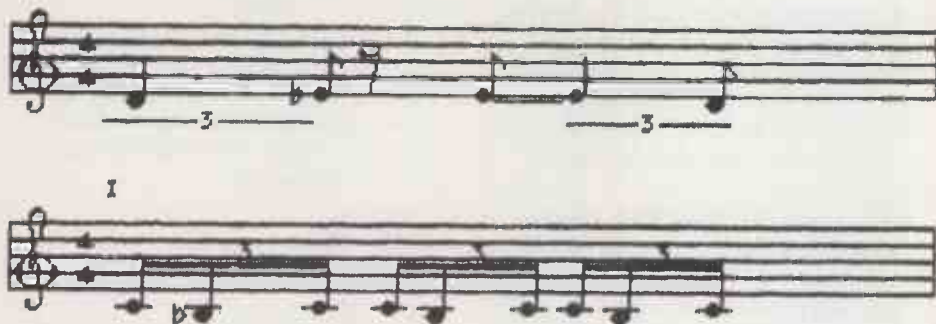
To be fair, this sort of time scale applies to any scorewriting program written for the Commodore 64, and is related to printer speed (or lack of it). And you do get a good-looking score at the end of it all.

The combination of Pro16 and TNS provides a powerful package which must rank as one of the best (perhaps even the best) yet written for an eight-bit home computer. It's fair to say the scorewriting and printing facilities won't find the degree of professional use that the sequencer undoubtedly will. MIDI music printing will only truly come of age when systems are developed to run on 16-bit computers.

But TNS also gives you some extensive step-time editing facilities, and allows you to create music, using a score-based system, which can then be played within the Pro16 sequencer – and there's no denying the value in that.

There are a few points – major and minor – that need clearing up, and a few additions which could usefully be made. But frankly, I'm amazed Steinberg have managed to cram so much into the C64, and still left musicians with a reasonable amount of memory left for their music.

If you're already sold on the Steinberg Sequencer, start saving your pennies for the Scorewriter. It's worth it. ■



to Pro16 to call up a new sequence. And while you can obviously select a new time signature for each piece, it's a shame you can't mix different time signatures in different tracks.

Features specific to a particular stave consist of key signature, quantisation value, release, legato and staccato values, and selection of a range and register for the stave. Incidentally, TNS only gives you treble and bass clefs, so such niceties as alto, tenor and soprano clefs are out. Anyone scoring string arrangements will miss the first, while early music aficionados will be even further out in the cold.

Being able to select a different key signature for each stave is valuable, as it allows you to print out parts for transposing instruments. However, this isn't a transpose facility in itself; you have to do that within the Pro16 sequencer.

Steinberg have been very thorough in providing all possible major and minor key signatures, including sharp and flat equivalents where applicable. Where chromatic notes require a sharp or flat

demand should be made on the user when the rest of the software is generally friendly and easy to work with.

More encouraging are TNS' editing facilities. A thick vertical blue bar appears with a transparent cursor 'box' positioned within it: you can then move this anywhere you like around the display. Once you've positioned the cursor (and you have to be fairly accurate), you can insert or delete a note, raise or lower an existing note a semitone at a time (shame you can't 'drag' a note up or down), give a note a new duration or add a duration to an existing note (which is how you create dotted and double-dotted notes). An irritating bleep from the 64's SID chip whenever you make an error ensures you quickly learn what not to do.

Problems? Well, if you're starting from scratch as opposed to editing existing data, you can't choose the range you

Prices Pro16 Sequencer £90, TNS Scorewriter £120, Interface £135, MIDI and Sync card interfaces £40 each – all including VAT

More from Oxford Synthesiser Company, 5 Gladstone Court, Gladstone Road, Headington, Oxford OX3 8LN. ☎ (08675) 5277

The Linn Sequencer is essentially the Linn 9000 without digital drum voices. But is drum machine sequencing software the right starting point for designing a MIDI keyboard recorder?

Paul Wiffen

Readers who were foolish enough to be enticed off the straight and narrow by the words 'Linn Sequencer' on the cover of rival magazines in recent months, will already know something of the machine before you read this review.

You will know, for instance, that this Linn is the company's first instrument that doesn't feature digital drum voices – which is, after all, the innovation which made the US firm famous in the first place. The reason is that this is essentially the Linn 9000 drum machine and sequencer, without the drum machine bit.

Now, when this reviewer looked at the Linn 9000 last Spring, he concluded that two of its outstanding features were the real-time programming of drum patterns, and the fact that your patterns and keyboard sequences are both stored in one machine. Since then, the 9000's sound-sampling has proved disappointing (its eight-bit resolution compares dismally with the 12-bit system used by the much cheaper Emulator SP12), and we still haven't seen the promised step-time programming functions, whose omission was so sorely felt back in April. On top of this, I've still yet to come across a version of the software which doesn't crash every time you perform certain sequences of commands (causing certain superstar producers to heave 9000s out the door when the machines crash with entire songs unsaved), though further software updates to cure these last remaining ills are, as they say, coming soon.

All in all, then, the Linn 9000 has proved something of a disappointment: a machine that promises an awful lot but delivers considerably less, and even then only in fits and starts, as a good many frustrated owners will no doubt testify.

Yet now we have the Linn Sequencer, a Linn 9000 minus the drum machine, which in one fell swoop removes both the really praiseworthy aspects of the earlier instrument. This leaves us with a spec that enables you to record up to 32 tracks of polyphonic data in real-time only: the step-time programming for the Sequencer is promised, not present (doubtless it's much

many as 999 bars each, with 32 polyphonic tracks on each sequence.

In general terms, the Linn's design succeeds where so many others have failed in keeping music recording as akin to the use of a tape recorder as possible. This is reflected in the provision of buttons labelled Play, Record, Forward, Rewind, Locate and Stop, rather than more conventional (and less useful) sequencer terminology. In fact, the only things you still have to select using a data selection process are track number (1 to 32), and MIDI Channel number (up to 16) for each track.

Naturally, you can only have 16 separate tracks triggering synthesisers independently on separate MIDI channels; any additional tracks need to be transferred to tape in separate takes. However, you can use the individual tracks to record different parts of the same instrument's performance, and have them permanently separated yet both sent down the same MIDI channel for replay.

In practice, the Linn records extremely accurately in real time. It's capable of capturing the smallest nuances of your playing (provided you set error-correction to its minimum value – see later), and if that's your principle requirement, this machine should fulfil it admirably.

And until the full step-time software becomes available, a function called Single Step acts as a great boon for stepping through notes individually, to sneak in and correct the odd slip without the need to re-record a whole section.

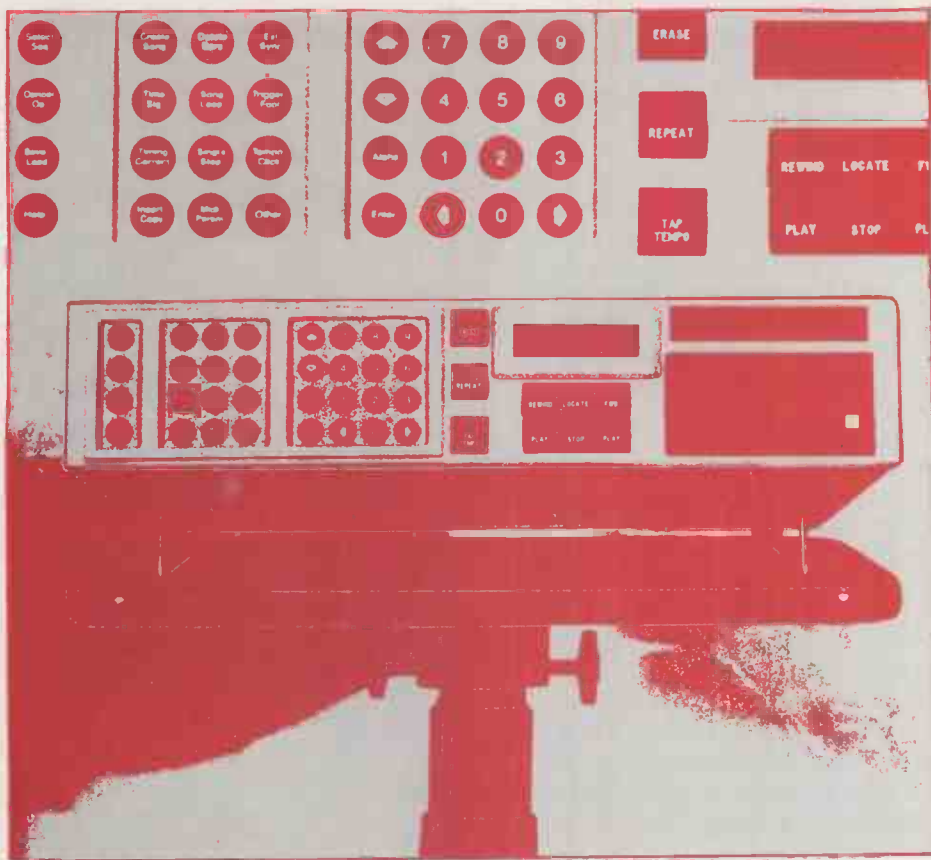
But there are problems. For even as a substitute for a tape recorder, as AN Other Magazine has already described the Linn, the machine has several significant shortcomings. For instance, whoever heard of a tape machine that makes you specify the number of bars of music you're going to record, before you start? Not me, that's for sure. Yet this is precisely what the Linn demands of you, even if you go for its default value. Not even the Casio SZ1 (at £250 –

RECORDING

the same software package for both machines). Those of you who follow my reviews – there must be one or two by now – will have heard me complain before of American designers' "jazz-rock" mentality, whereby tape recorder-style sequencing is the only facility supplied. Well, for the time being we'll have to put the Linn Sequencer into this category too, I'm afraid. Currently, the machine's basic format allows the real-time recording of up to 100 sequences of as

remember!) makes such a ridiculous imposition on your creativity. Just imagine it: there you are, in the middle of a really great phrase you'll never find again, when suddenly your sequencer stops recording, and replays the drivel you played while you were just getting warmed up.

Still, if you do manage to play something world-shattering while the Linn Sequencer is actually recording, you can at least snip off the unwanted material before and after it,



and then loop the good bit round and round, or append it to another good bit that's been similarly tailored.

There are problems on the display front, too, as the Linn offers little visualisation of what's going on across those 32 tracks. The pitifully small liquid crystal display has been used efficiently by Linn's software writers, make no mistake, and offers all sorts of helpful hints on the current recording status quo. But you can only see the status of one track or parameter at any one time, which, when we're dealing with 32 recording channels and a whole host of editing functions, really isn't good enough. And when step-time composition does arrive, goodness knows how you'll be able to see what you're doing.

Anyway, quibbles aside, you can overdub on a track as soon as you've recorded it by the simple process of changing the track

copying and editing facilities are an excellent bar insertion/copying system, by which bars can not only be moved from one location to another, but also shifted around between different sequences—handy if you're toying with a couple of intriguing melody lines, without really knowing which context they'd work best in.

Presentable performances of ideas are made easier, too, by the error-correct facility—which, unfortunately, works as you record. Now, this is a matter of personal preference. If you auto-correct during recording, you lose any feel you might have been able to salvage from a freak good performance. On the other hand, the instant playback of a corrected performance means you can kid yourself (and others) that you're a far better player than you actually are. Personally, I reckon that if you're going to auto-correct everything to Hell, you might

you have to hold down the notes in question while the sequence is at the point where the unwanted notes appear. In other words, a system not unlike that used by Yamaha's digital drum machines, by which you have to tap the Erase button at exactly the same time as the unwanted drum beat sounds, in order to remove it from your composition. Whilst this sounds easy enough, it can be tricky to execute in certain situations, especially if you're relatively unfamiliar with the Linn's workings.

If you've been taking note of my criticisms thus far—the erase operation, the fixing of bar numbers before you start, auto-correct as you record—you'll begin to realise what we have in the Linn Sequencer. Yes folks, a box with a load of drum machine software in it, hastily modified to make it suitable for recording keyboard information. Or to put it another way, a sequencer that still thinks it's a drum machine. Great for drummers and studio engineers who want to get into sequencing keyboards, but hardly what the world's keyboard players have been holding their breath for.

Chaining sequences together is done in a drum machine-like manner as well, though in this instance, having such a step-by-step approach is a positive advantage. This, together with a facility to name your individual patterns with such mighty legends as 'verse' 'chorus' and 'middle 8', means you're unlikely to make any mistakes in getting the shape of your song together, and even if you do, these are easily rectified.

You can also use short sections from sequences in your songs, so that you don't need to re-record small musical 'quotations' or half-verses from scratch to place them elsewhere in your composition.

Other definite plus points include a MIDI Transpose facility (sadly not yet storable within the Linn's memory), and a long list of pattern-programmable parameters that includes tempo (adjustable over a resolution

W I T H O U T T A P E

number and MIDI channel number, as shown in the display. This is an extension of the Portastudio or 'sketchpad' approach to sequencing, and for those who like to work in this fashion, I'd say the Linn is probably the fastest unit. It certainly beats the Yamaha QX1 hands-down in terms of sheer operating speed and user-friendliness. With the Linn, knocking a song together track by track is a relatively painless process.

Among its fine array of track assignment,

as well program everything in step-time anyway—though as it stands, of course, the Linn Sequencer won't let you do that. Still, providing your playing technique meets a certain basic standard, the Linn's method is faster. At any rate, this particular auto-correct function seems to work pretty damn well: everything comes back at you with almost inhuman precision, regardless of how sloppily you've played it.

To erase individual notes from a sequence,

of as little as a tenth of a beat), tempo change, time signature, and so on.

Thus, it's really in the transformation of a bunch of sequences into a coherent piece of music that the Linn begins to earn its (rather expensive) keep, in terms of both time-saving and artistic control.

The 3.5-inch disk drive is used for storing all your sequence data, and the Linn Sequencer is clever enough to format its own disks, so the cost of the floppies is the only ▶

▶ 'hidden' extra storage expense. One disk is capable of storing over 110,000 notes, which is probably enough for most, non-Wagnerian purposes.

Exhaustive tests failed to reveal any MIDI code which the Linn was incapable of dealing with. Aside from the inevitable note-on and note-off commands (with velocity as standard), aftertouch, pitchbend and mod wheel data, sustain pedal and program changes, the Linn also understands other, rarer continuous controller codes, and various system exclusive operations.

Synchronisation with the outside world is another of the machine's better considered aspects. There's a full implementation of MIDI real time messages (complete with the vital Start, Stop and Continue commands and Song Pointers), and a facility for older gear (working on a clicks-per-quarter-note scale) to be triggered; this can be extended to include individual trigger pulses.

Another promised update (still not available for the 9000 last time I looked) is SMPTE. However, all the practical hassles inherent within music recording via SMPTE (too many to discuss here, I'm afraid) make this an omission not really worth losing sleep over. My advice? Buy yourself a Roland SBX80 or an SRC and control everything via MIDI Song Pointers, which are immeasurably more reliable anyway.

A Computer Interface on the back panel would seem to portend a more comprehensive visualisation of sequences, but no one seems to know much about this at

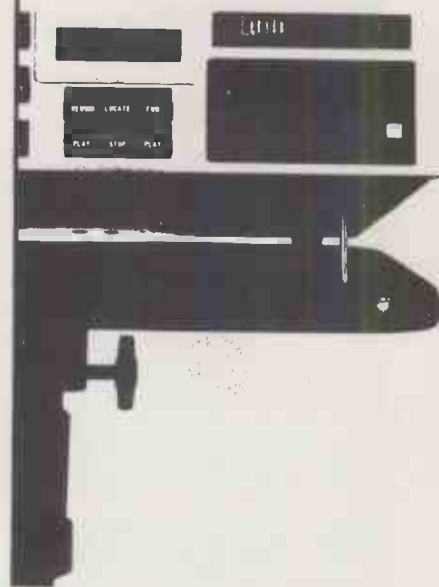
the moment. I'll tell you more when someone tells me.

Concluding this review is a difficult task. It's clear that, far from being beyond criticism, the Linn Sequencer has a number of glaring design faults which severely restrict its usefulness in a wide variety of applications. It has no step-time recording facilities yet, its recording format requires the user to put up with a number of operational annoyances, and it lacks a large number of the writing, editing and assignment features that make using the Yamaha QX1 such a rewarding experience. And in comparison with the features and price of the new Roland MC500, the Linn Sequencer starts to look very expensive indeed.

Yet as a digital recorder whose job it is to store lots of MIDI information quickly, faithfully and usefully, the Linn is a joy. It is astoundingly accurate, and it puts up fewer boundaries between technology and musical creativity than almost any machine I know of. You can use this sequencer in much the same way as you would any other musical instrument, and not ever fully realise (let alone worry about) just how complex it is.

So why aren't I more enthusiastic about it? Maybe it's just that, to me, a sequencer is first and foremost a compositional tool, not a piece of recording equipment. ■

Price RRP £1995 including VAT
More from Syco, 20 Conduit Place, London
W2. ☎ 01-724 2451



KEEP AN EYE ON US

MR-10 PERSONAL MULTITRACK RECORDER

The all new MR-10 comes from Vesta Fire, a company with years of experience in design and manufacture of home and professional recording equipment.

The MR-10 is both a multitrack recorder and a mixer, internally connected. It offers all the standard functions, like

multitrack recording, overdubbing, ping-pong, and remixing to stereo, plus unique features like a pair of RIAA phono inputs for direct connection of a turntable.

With a total of 10 inputs, the MR-10 is an extremely flexible tool for anyone involved in multitrack production.

THE RECORDER

Track format is compatible with standard stereo cassettes running at 1 7/8 ips, with a variable speed of $\pm 15\%$ for fine tuning of tapes and special effects. dbx* noise reduction (which can be switched out) ensures clean, quiet recordings with plenty of headroom. Remote punch in/out is easy with the footswitch FP-1, and any input or combination of inputs can be routed to any track or pair of tracks.

THE MIXER

This features 10 inputs: the two main inputs each has a fader, 40dB trim control handling

guitars, mics, synthesisers etc with ease, and two band equalisation. The Aux/Phono mixer combines stereo signals from aux and phono in via level and balance controls.

During initial recording, signals from the four line inputs are mixed and go to the L/R buss line. When mixing down, each recorded track goes through Level and Pan to the L/R Master outputs. With the Remix switch on "TRK", you can monitor separately pre-recorded tracks and new signals during overdubbing.

* Reg. trademark.



PROFESSIONAL
SOUND EQUIPMENT
Vesta FIRE

FORD HOUSE, 58 CROSS ROAD, BUSHEY, HERTS., WD1 4DQ, (0923) 34050

PROJECT

Project Electronic Music
71 Salisbury Road,
Hounslow, Middx TW4 7NW.
Telephone 01-570 4444

Late night Thursday till 7pm

Come and 'ave a look at some of our stuff

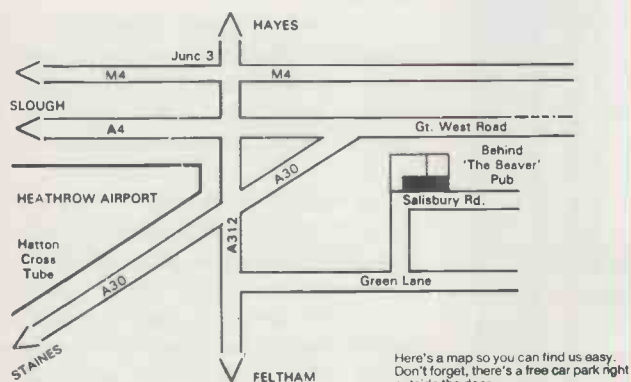
OK you guys here's your new years resolution phone Project first for the best prices in town on all Aria guitars and the entire range of Roland + Boss products we've also got.

Amps by Peavey, Marshall, Session, Carlsbro.

Guitars by Ibanez, Tokai, Westone + Fender.

Plus Ensoniq Mirage, Yamaha DX7, DX21 and full Casio range all at competitive prices.

Get smart in '86 give us a call



Another thing that's easy is the phone number. 01-570 4444. We open 9.30 to 6.00 Tuesday to Saturday—later by appointment. After that, talk to us on the Ansaphone. 01-570 4444.

Access/Visa/HP/Mail Order/Export.



We do the lot.



RAM more in your



**YAMAHA
DX7 - DX5
DX1 - RX11**

With a

**SR64
VOICE RAM**

'The Professional Choice'


- 64 voice capacity (twice as many as the original RAM for the same price!)
- Automatic write protection circuitry (no memory dumps)
- Ultra-fast one second writing time (15 times faster than the original)
- Unlimited number of write/erase cycles (no burn out)
- Unique double-ended design eliminates switching problems
- Available in five distinctive colours (Red, Black, Silver, Blue and Green) for easy identification
- Rugged, road-proof, anodised aluminium case for maximum protection - lasting good looks
- Lithium power battery for long life (conservatively rated at 6 years)
- Gold-plated contacts for lifelong reliability
- Built to the highest specification and fully guaranteed

**£85
INC. VAT**

Available from the following dealers:

Argents Keyboards - E.S.S. - London Rock Shop - Music Village
Chappels of Bond Street - Rose Morris Shop - Don Larking Audio

Andertons of Guildford
and other leading keyboard stores
OR DIRECT FROM:

**SOUND
SALES** 

SOUND REINFORCEMENT SPECIALISTS
CONCERT TOURS, INSTALLATIONS

Orchard Cottage, Church Hill,
Ravensden, Beds. MK44 2RL
Telephone: Bedford (0234) 771 189

OUT T·A·K·E·S

Latest goings-on in the fields of record-making, live performance and video production analysed by E&MM's reviewing team – plus a roundup of some of the better readers' demo tapes to reach the magazine's offices during the last month or so.

VINYL T·A·K·E·S

Steve Jolliffe

Japanese Butterfly

Nada Pulse LP

After what seems like an unbelievable delay, the former Tangs man finally gets his second solo album out on release.

Japanese Butterfly is a slow, tranquil work, each of its pieces a homage not only to the traditional oriental music from which the album derives its title, but also to the magical – though incredibly underused – interaction between synthesisers and wind instruments.

Jolliffe plays both with equal sensitivity, but as it's the sax and flute that take the lead part on all these tracks, it's the man's wind playing that really stands out. If anything, it's the least oriental-influenced pieces – 'Home' and 'Secret Garden' – that catch Jolliffe at his most inspired, layering delicate, lilting sax melodies over punchy but strangely soothing DX7 bleeps. The breathy, deliberate flute of 'Lost' is also a joy to behold.

Nada Pulse boss Dave Lawrence describes 'Japanese Butterfly' as a meditative album, and in a sense he's right. But Jolliffe in this mood is more likely to bring us closer to the real world than lift us away from it. With its supreme sense of balance and timing and its astonishingly clear (eight-track) recording quality, this album makes a mockery of today's big-production synth records, proving more powerful in its mixture of old and new than any computer-assisted 'dynamic' music I can think of.

If I have a quibble, it's that *Japanese Butterflies* is littered with familiar DX and JX3P synth presets that could so easily (Jolliffe is a talented programmer) have been given more individuality.

But as it is, this album does enough to shatter all illusions about what a modern electronic music record should be. It is bright without being brash, atmospheric without being atonal, and colourful without being comic. It is wonderful. ■Dg

David Sylvian

Words with the Shaman

Virgin cassette

After a prolonged period of silence, and after repeated, unfulfilled promises of a new

album, Sylvian has finally resurfaced with a limited edition cassette and an accompanying video. It's been a long wait since the release of the excellent *Brilliant Trees* LP back in '84, and Sylvian's left himself no mean task in following his first solo work – though whatever the background, *Words with the Shaman* shares quite a lot of common ground with its predecessor.

This time around, though, Sylvian has put



his most distinctive trademark – his voice – on the back burner. 'Words' is entirely instrumental, despite its title.

The result of the exclusion leaves the curious intricacy and beauty of Sylvian's jazz/ambient cross-breed in full view, but deprives it of its first line of accessibility. Sylvian has a rare talent for melody as well as structure, arrangement and the rest of it, so the voicelessness is a regrettable omission.

Still, this collection of instrumental doodlings – all of a highly improvised nature, I suspect – makes intriguing listening. Oddly set up drum kits collide head on with gliding synth clusters, ancient ethnic trumpets, and Fripp-esque guitar splurges courtesy of the man who invented them. Yet somehow it all works, and you finish listening to the tape with the feeling that its bizarre arrangement is as natural as guitar, bass and drums.

Maybe this is a classic case of the artist trying to outrun his audience in pursuit of his art, but *Words with the Shaman* does just enough to convince you that Sylvian remains

one of modern music's few genuine innovators. ■Tg

Malcolm McLaren

Swamp Thing

Charisma LP

Seems McLaren just managed to take enough time out before his wedding to pull together an album's worth of material for release – probably to ensure an uninterrupted honeymoon.

But this isn't brand new music from the man who – amongst many other things – gave high technology street credibility when he spotted the potential of synths, samplers and drum boxes long before most dancefloor producers had cottoned on. The material in question spans three years – '82 to '84 – and has been written with assistance from some people called Trevor Horn and Stephen Hague.

Along with McLaren himself, Horn and Hague are also partly responsible for the production work, and it's a Horn production – 'Duck Rock Chant' – that stands out as being the catchiest, most memorable offering here.

The rest is a hotch-potch of influences – from pop to opera and back to pop again – that look interesting on paper but don't add up to much on record. The Troggs' 'Wild Thing' and the 23rd Psalm provide the unlikely impetus for an uninspiring title cut, whilst 'Eiffel Tower', draws on McLaren's own plagiarised 'Buffalo Gals' – but lacks either the novelty or the finesse of the original. Greatest disappointment of all is 'Supresto', which kicks off with Frankie's TR707 drum pattern, reaches out to embrace Paul Hardcastle's stuttering '19', and then goes...absolutely nowhere.

Well, you know what they say: the line between genius and madness is very, very narrow. ■Tg

Aspects of Paragonne

MMCLP

The sleeve notes to this one suggest it was made for two reasons: the first to experiment with the possibilities of using two keyboards and percussion, the second to combine the diverse musical skills of keyboardists Tony Hymas (remember PhD?) and John Taylor.

E&MM MARCH 1986

The result is more fun than the serious narrative might suggest, even though *Aspects of Paragonne* begins abysmally with the repetitious, cliché-ridden '24 Hours'. Yet between them, Hymas and Taylor – more than ably assisted by sax player Stan Sultzmann, percussionist Frank Ricotti, and bassist Chris Lawrence – pull what's obviously a fairly 'loose' ensemble into shape for most of the rest of the album. By the time we get to side two, the quintet are coming up with pieces as finely constructed as the unsettling 'Agression and Regression' and the passionate,

melancholic drama of 'The River'.

This is first and foremost jazz, of course, which means lots of extraordinary key changes just where you don't them expect to be, lots of intricate harmonic interplay, and lots of musical in-joking between the performers (like the telephone bell imitations within '71890'). Yet these musicians aren't just playing for themselves, and the technical brilliance of their performance rarely gets in the way of listening pleasure. In any case, most of the time you're too busy trying to appreciate new combinations of tone colours

(anyone for piano, latin percussion and soft polysynth textures, all playing against one another?) to let the odd bit of virtuoso oneupmanship cloud the view.

That initial aberration aside, *Aspects of Paragonne* is a fine example of what can happen when a bunch of highly talented musicians bungs a truck-load of disparate influences into a cooking pot, and emerges with a dish that's as tasty to consume as it was to prepare. If you're already a jazz fan, buy it. If you aren't already a jazz fan, listen to it first, then buy it. ■Dg

LIVE T·A·K·E·S



Sting

Windsor Hall,
Bournemouth

For anyone who took the year off in search of rare species of Chinese water buffalo, Sting's first solo album, *The Dream of the Blue Turtles* was one of 1985's most acclaimed LPs – and rightly so. After seven years together, The Police had gone their separate ways by mutual consent, and each member of the band involved himself with an entirely different type of project.

For his part, Sting pieced together a new band of musicians known primarily for their work in the jazz arena. It was undoubtedly a risk, but as both the album and this live show proved, a risk that paid off.

From the moment the band kicked off with the Police number 'Shadows in the Rain', it was obvious these musicians were very, very tight – though in as friendly and as accessible a way as you can think of. They were a joy to watch, not least because they were so obviously enjoying themselves. Highlights included some storming keyboard solos
E&MM MARCH 1986

from Kenny Kirkland (his panache put Sting's one guitar solo in the shade), an amusing rap by sax player Branford Marsalis (stylish, precise and awe-inspiring throughout – and he's only 22), and a moving solo performance of 'Moon Over Bourbon Street' (the new single), which succeeded in moving at least one member of the audience to tears.

Sting's voice let him down once or twice, but his stagecraft never did. And he remains one of the few rock performers capable of switching from the dynamic and aggressive to the moving and evocative at a single, spectacular stroke.

The band went through most

of *Blue Turtles*, along with tracks off every Police album and a few oddities such as 'Low Life' (B-side of 'Spirits in the Material World') and 'I Burn for You', originally intended for *Ghost in the Machine* but eventually used on the *Brimstone and Treacle* soundtrack instead. The hits were there too, of course, but in common with the rest of the material, they were given new arrangements and different interpretations. At best these worked extremely well, improving the originals by adding an extra, unexpected dimension. But just occasionally, the repetition of a single riff was just too extended for comfort, like the long passage that closed

the medley of 'One World'/'Love is the Seventh Wave'.

The final stages were sloppy and self-indulgent, but a welcome surprise was the addition of Police guitarist Andy Summers; an unwelcome one was his faulty guitar lead.

Two-and-a-half hours after it had begun, the concert wound down in the same informal atmosphere that had characterised it from the beginning. It was the end of a display that did more than just promote an excellent album; it showed familiar songs in an unfamiliar light, and contained a rare, successful blend of pre-planned precision and sunny spontaneity. ■ Neville Unwin

Video T·A·K·E·S

David Sylvian *Steel Cathedrals*

Virgin Video

Committed to film as opposed to currently fashionable videotape, 'Steel Cathedrals' deserves to be described as a short film rather than a promo video; in fact, it isn't really a 'promo' anything, since it's hardly likely to sell Virgin any more records. It's intended to complement – rather than advertise – the instrumental piece of the same name, as found on the second side of Sylvian's *Words with the Shaman* cassette.

The film was shot late last year in the outskirts of Tokyo – no surprise there to anyone familiar with Sylvian's past or his long-standing preoccupation with things oriental. Similarly unsurprising is the host of oriental names involved with its realisation, amongst them that of YMO's Ryuichi Sakamoto, who contributed to the recording.

The film uses few people in its imagery, presenting instead a series of pastel images well suited to the careful, downbeat mood of the music, with its swirling synth textures and deadpan drum beats. Just as Sylvian is expert in manipulating musical textures, so

he appears equally adept at coaxing succinct combinations of visual images.

The main focal point turns out to be swimming fish: again well suited to the musical mood (though don't ask me why), and possessed of the pre-requisite Far Eastern overtones. In contrast, industrial landscapes are shown with softness and delicacy, giving them an oddly natural appearance that's as pleasing as it is unexpected. The images blend together easily and smoothly, moving in sympathy with the musical changes of the soundtrack, without ever descending into chocolate-box soft-focus cushioning.

The results are initially unremarkable; the film appears not only uneventful but also curiously directionless. But repeated watching brings out a compelling empathy between the seen and the heard, just as repeated listening uncovers subtle, previously hidden treasures of arrangement and structure.

In 'Steel Cathedrals', Sylvian has produced an intriguing, atmospheric work that succeeds in satisfying both ears and eyes far better than the average pop promo – with its dry ice effects, moronic miming and vacuous three-minute story-line – will ever manage.

■ Tg

DEMO T·A·K·E·S

► **Master of Ceremonies:** Welcome, ladies and gentlemen, to this month's edition of DemoTakes, the show where budding stars get the chance to put their tapes in front of a panel of celebrity judges.

The opening slot on this month's show goes to a London outfit calling themselves **Important Notice**. The



band are a four-piece and, although they have a regular drummer, have opted to use a Yamaha RX15 for convenience on the four self-penned songs presented here.

Judges: Considering that this recording was made bouncing down onto a Revox A77, the quality is stunning. And the standard of the recording is fairly representative of the band's efforts as a whole: the drum programming is refreshingly human, the playing is tight – especially the flute on

'Hypnosis' – but, most importantly, the songs are well written and very catchy. Perhaps better suited to the American market than the British, but either way, an excellent effort.

Master of Ceremonies: Thank you. Next we have a synthesiser duo from Wiltshire calling themselves **State of the Art**. What you are about to hear is the result of the band's first venture into a 16-track studio, with Paul Hugget looking after the majority of the keyboard work and programming, leaving Marcus King to take care of the remainder and the vocal honours.

Judges: Radio 2 commerciality employing a typical cross-section of today's financially accessible high technology: DX7, Bit One, CZ1000, TR909, Digisound modules, and so on. We feel that the songwriting is the main area for concern here, though the SDS1 tom rolls also grate somewhat. Production is another weak area: the danger is that an A&R man won't make much of an allowance for that and you'll lose out.

Master of Ceremonies: Now onto **Highway**, who hail from sunny Birmingham and recorded these three songs in November '85. Coincidentally,

the tape is also a result of a first visit to a studio, again a 16-track. Let's see how they fare.

Judges: Maybe this was actually recorded in the States – if it wasn't, it should have been. But in all seriousness, this band have a great sound and play well. The songs are well put together, even if they do sound as though they ought to be aimed squarely at the American market, where they'll either do really well or disappear under the glut of similar material that already exists there. Better still, we suggest the band get involved in making the soundtrack for a film about an Italian fighter with a small vocabulary and a very large chip on his shoulder, then they'll find themselves in as much demand as Westland shares.

Master of Ceremonies: And so to **The Wilson Years**, a three-piece from London, with Ann playing Keyboards and singing, John taking care of more keyboards and Michael on guitar. There's a lot of Yamaha CX5 computer on these three original songs, but has it helped at all? Over to the judges.

Judges: We didn't take to this at first, though after a couple of listens it does begin to grow on you. The melody on

the first track, 'Will You Love Me Too', is actually quite catchy. It's too slow to grab a lot of attention, though. Generally the songs aren't particularly distinctive, but the fact that the recording is rather flat – Porta One job, wasn't it? – doesn't help. Again, better songwriting is basically what's required.

Master of Ceremonies: Finally tonight, we've got a bit of an oddity for your entertainment, in the form of two tracks from **C Logan**. Let's see what the jury make of them.

Judges: Well, he certainly makes novel use of a kazoo and an Acorn Music 500! It sounds rather as if Mr Logan has set silly lyrics to a wayward computer game and a jazz bassline. Definitely unusual, but a little too off-the-wall for our taste.

Master of Ceremonies: Well, that's about it until we meet again same place, same time, next month. Don't forget to keep sending in your demos for us to put in front of our panel of celebrity judges. The address to send them to is: DemoTakes, E&MM, Alexander House, 1 Milton Road, Cambridge CB4 1UY. Good night, and good luck. ■ Tg

At last! The ultimate system from Steinberg



STEINBERG RESEARCH

See this amazing system at your local OSC dealer or contact:

OSC Ltd

Oxford Synthesiser Company Ltd.,
5 Gladstone Court, Gladstone Road,
Headington, Oxford OX3 8LN.
Tel: 08675 5277 Telex: 83147 att: OSCAR

PRO16 Sequencer for Commodore 64 and Apple IIe (See review in E&MM, February 1986)

- 16 track polyphonic ● Step time and real time ● Auto correct
- Overdub ● MIDI delay ● MIDI songpointer ● Tape sync ● MIDI and standard clock sync ● 8000 note capacity ● Many more features, too many to list.

TNS Scorewriter for Commodore 64. (See review in this issue)

- Displays standard music notation on screen with auto correction
- Print out facility ● Handles complex music accurately, including chords containing multiple note durations, overlapping beamed groups ● Step time editing allowing you to set, insert, or delete notes and rests at any place ● Handles ties, flags and beams, rests, split points, enharmonics and any time and key signature.

BONNERS

12A GROVE ROAD, EASTBOURNE, EAST SUSSEX

0323 639335/645775 - CLOSED WED PM

YAMAHA CASIO SEQUENTIAL AKAI ensoniq

WE BRING YOU THE VERY LATEST EQUIPMENT - FIRST!

YAMAHA SPX-90 DIGITAL MULTI-EFFECT PROCESSOR

The SPX90 has an exciting range of 30 ROM preset effects, each with as many as 9 controllable parameters to choose from. The built-in RAM memory capability lets you store up to 60 personalized effects with your original title for easy recall. For stunningly close-to-natural vibrance and warmth the programs include the full Reverb, Early Reflections and Delay/Echo effects capabilities, and for fine tonal tailoring there is even a digital Parametric Equalization program. Modulation effects like Chorus and Stereo Flange, for example, provide a richer, fuller sound. Special effects include Freeze (known as sampling), Pitch Change, Gate Reverb, ADR Noise Gate, and Auto Pan. MIDI compatibility is now a standard requirement for the latest effects processors. Thus, the SPX90 will not only accept program changes. Some programs like Freeze and Gate Reverb can also be triggered via MIDI. Another great feature lets you control pitch changes from a MIDI keyboard.



RRP £599

YAMAHA MT1X

4 TRACK RECORDER/ MIXER

The MT1X combines a four-track cassette recording mechanism with a full-function 4-channel mixer. The mixer section includes tape-mic/line input selectors on each channel, level adjustment for mic and line input, auxiliary send and master return inputs for effects processing, and a separate monitor section with level and pan controls for each track.

**RRP
£449**



YAMAHA RX21L

LATIN PERCUSSION UNIT
- 16 VOICES - MIDI
COMPATIBLE - 50
PROGRAMMABLE PATTERN
- CASSETTE STORAGE

**RRP
£249**



YAMAHA QX21

DIGITAL SEQUENCE RECORDER
- 8100 NOTE MEMORY - MIDI
- REAL/STEP TIME RECORDING
- INDIVIDUAL TRACK EDIT -
CASSETTE STORAGE

**RRP
£259**



DX7 OWNERS - ILLUMINATED LCD KIT £50

ENSONIQ MULTI SAMPLER

Includes disk formatter masos

The Mirage Digital Multi-Sampler has all of the performance and sampling features of the Mirage Digital Sampling Keyboard - without the keyboard. It's a complete polyphonic eight-voice instrument with a musical range of 5 octaves, includes a disc formatter, advanced sample guide and sustain pedal.

£995

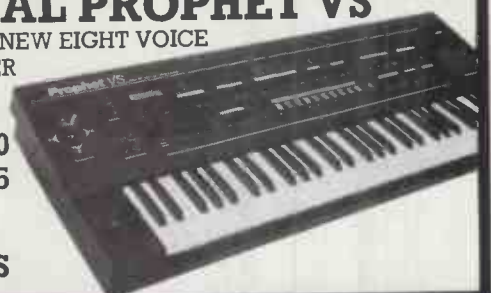


SEQUENTIAL PROPHET VS

THE PROPHET VS - A NEW EIGHT VOICE
VECTOR SYNTHESIZER

**PROPHET 2000
IN STOCK £1995**

**RING FOR
MORE DETAILS**



Roland DDR30 MIDI drum set
(6 pads) RRP £1599

RRP £1599 - SALE PRICE

£995 COMPLETE



BOSS MICRORACK CLEARANCE!

FLANGER, PHASER
GRAPHIC, PARAMETRIC

£90 EACH

SPECIAL ITEMS FOR CLEARANCE

	BONNERS	
	RRP	PRICE
Roland MKS-7 super quartet expander - A TR707, SH101, Juno 106 in one!	£980	£650
Roland Axis remote keyboard - 4 octave standard size keys, patch programmer	£500	£295
Roland SDE2S00 MIDI 64 prog. delay	£600	£450
Elka S0/mono synth	s/h	£99
JHS delay/reverb 1300ms/15Khz	£269	£199
Fender 73 Mark II Rhodes vgc	s/h	£199
Casio CZ1000 synth/expander	£499	£440
Korg SQD-1 sequencer 1500 note memory, disc drive	£599	£475
Roland MPU103 MIDI filter/converter	£225	£99
Roland MPU101 MIDI, CV, assignable MIDI channel	£275	£175



AKAI

S612 MIDI digital
sampler + disc drive

INCREDIBLE LOW PRICE £895 COMPLETE

CASIO

KEYBOARD BARGAINS

● Keyboard/49 keys (4 octaves) ● Sound source: PD (Phase Distortion) sound source system ● Voices: 8 (using 1 DCO) or 4 (using 2 DCOs) ● Tone Memories (Preset): bank of 16 (preset) ● Tone memories (Programmable): bank of 16 (internal) ● External Memories (RAM Cartridge): bank of 16 (cartridge option) ● Compare Area: 1 (compare/recall) ● Programmer Section: preset, internal, cartridge, compare/recall, tone select 1-16.



Interest free credit on all Casio - Ask for details

	RRP	OUR PRICE
CZ1000	£499	£440
CZ101	£399	£295

● £200 to £2,000 No Deposit, credit 32.3% APR Subject to status - on most equipment. Only travel as far as your local H.F.C. branch to sign document. (Arranged by us)
● MAIL ORDER - ACCESS, BARCLAYCARD, VISA, AMEX, DINERS. Sales can be conducted over the 'phone. Bank drafts,

Building Society cheques and postal orders will take 5 working days to clear before goods can be sent.

● FULL 12 months parts and labour warranty - FREE UK DELIVERY (Securicor).
● All prices include VAT (overseas buyers exempt)

ADDITIONAL discounts for DX Owners Club members, please quote your membership number on all correspondence. Being a club member will automatically entitle you to many benefits.

▲ UP AND RUNNING

▲ Second in our occasional series on bands at the halfway point between bedroom demos and mass success. ▲ This month, a cosmopolitan six-piece with a distinctive stage presentation, and a brilliant fusion between ethnic rhythms and modern technology. ▲ Interview *Tim Goodyer*

▲ From the moment Roland unveiled their CR78 Compurhythm to an unsuspecting industry, through the advent of the Simmons SDS5 electronic kit, right up to the current fad of the DX7 Log Drum preset, electronic alternatives to traditional percussion have become increasingly important to modern musicians. Thus far, the drum machine has been hailed as everything from an invaluable songwriting aid to a mindless source of mindless rhythms, while the electronic drum kit is still regarded by some as the potential executioner of its acoustic parent.

Realistically, there's no reason for this conflict. It's just that the musical fraternity has an age-old tradition of resistance to progress, be it turn-of-the-century revulsion of the saxophone, or eighties abhorrence of synthesised drums. It's a sad reflection on today's supposedly enlightened musical world, that it's often left to lowly pop musicians to show the way to serious artists.

Let's speculate on the existence of a band fascinated by rhythm in all its forms, and unhindered by Luddite blinkers. Their scope would be enormous: traditional rhythms of worldwide sources from Brazil to Tibet; instruments ranging from a LinnDrum to a talking drum. Arrange these elements within a pop context, and you have Drum Theatre.

Drum Theatre are a six-piece band drawn from homes as far afield as Chicago and Sheffield. They draw on both modern technology and ancient tradition with equal aplomb, fusing them with strongly melodic songs to a single end: to make good pop music.

'Pop music does get slagged a lot', as the band themselves admit, 'but it's very, very difficult to write a good, catchy melody – and that's what good pop music's about: good melody. It's far easier to come up with something that's obscure and arty, like banging a couple of pieces of pipe for a few hours, no doubt to great critical acclaim. And just regurgitating old ideas with a commercial feel will sell records, but that's *bad* pop.'

All very astute, but is this evidence that Drum Theatre are



drum

just another example of record company speculation on the pop stock market? A little money in – a lot of money out? Fortunately, it isn't.

'It's not our deliberate aim to write pop songs for the sake of it – it's just the sort of music we like writing.'

Fair enough.

It's almost three years since founder members Kent B and Gari Tarn first met in a London club, drawn by a common interest in African music. The result of this introduction was the nucleus of

Drum Theatre, formed along with American keyboardist Patrick Gallagher, and with Tarn falling into the singer's rôle when there was nobody else to sing on the first demos. The fledgling Drum Theatre existed with this line-up for a short period, but added the remainder of the present personnel – guitarist Simon Moore, bassist Paul Snook and drummer Myles Benedict – when they wanted to break free from the confines of the recording studio.

Demo tapes were duly recorded and sent out. One of the selected

targets, Epic, received a tape with no covering information or contact address. The contents of the tape, however, were impressive enough for the label to search for its creators, a contract was eventually signed, and a debut single 'El Dorado' was released towards the end of last year. It received some heavy airplay, but the pandemonium of Christmas shopping habits prevented it from



ethnic) that could so easily fight each other for air space?

Kent B: 'I think one of the problems we've had with incorporating ethnic instruments into our music is that, in their native environment, they don't go through any chord changes. They remain with one chord or in one key, so we've had trouble adapting them to western music.'

Wouldn't sampling help?

'Even if you sample something, so that you've got every key available to you, it loses part of its quality — it doesn't quite translate. Sampled sounds are very different to natural sounds.'

'Although technology is widely used in our music, we keep it transparent unless we're trying to achieve a certain effect. A Fairlight will colour a sound, so sometimes you sample a drum to get a different kind of sound because of that distortion. We've used sampled drums just in certain places, like amid a Caribbean groove to give a certain effect. It's especially effective if you sample with reverb, because the reverb stops the moment you stop the sample.'

Gari Tarn takes up the subject. 'I think the technology is transparent in most of what we're doing, but, for example, we'll use it where you might not be as tight actually playing a part. "N-n-n-nineteen" is a very obvious trick, so we tend to avoid that sort of thing.'

AT he solution to the puzzle of translating tribal groove into mass-media commerce turns out not to lie in assaulting tradition with technology, but in the number and variety of musical instruments

Tarn: 'Sometimes you can see a picture of something and say: "it must sound like this", so you've got the idea for a new synth patch. We derived a cora patch that we think sounds better than a cora.'

But, as every synth programmer knows, searching so hard for sounds can all too easily get in the way of writing music. Drum Theatre admit to being vulnerable to this malady, but believe they have it under control.



theatre

being a big hit.

So here we are in the first month of 1986, sat in a London recording studio, surrounded by the tools of Drum Theatre's trade. Brightly-painted guitars, kotos and mbiras litter the floor. Present are five of the six band members; the absentee, keyboardist Gallagher, is in the States avoiding pressure from Her Majesty's Government over his work permit.

We begin, not unexpectedly, on the subject of fusion. Have Drum Theatre had problems merging two musical genres (western pop and

used. Kent B explains.

'There are tons of them! If you look around you'll always find something, so you're not really limited in that way — different drums, different strings and so on. We tend to put them into groups, so Simon will play thin strings and prongs, Paul plays fat strings and thick prongs, Myles plays sticks and tricks.'

'Every day someone finds something we haven't seen before. And that poses the question: "What do you do with this? Pluck it, blow it, kick it, or sample it?"'

Tarn: 'We do suffer from an obsession with sounds, but only after the song is written. Once we know where we're going, we'll muck about with the details for hours. By then it doesn't really matter, it just gives us something to do. We've got to argue about something!'

Kent B: 'But if we didn't pay any attention to it, we'd end up without a style. The songs we write are generic — if you listen to the bass drum pattern it sounds like a lot of other songs — so it's the way we layer the sound on top that makes it ▶

ours. That all comes from the production side.'

Kent B credits new technology with exerting other, more significant effects, too. 'It makes it a lot simpler to play and to write music — especially if you write on your own. A big change that music's been going through lately is that individuals now have an entire band at their fingertips, so a composer can create a song exactly as he sees it. Before, a band used to get together and all contribute something to the finished result.'

Tarn: 'I think it also leads individual musicians to develop a much stronger style than they might otherwise have done. For example, Simon's guitar style has developed in ways that it probably wouldn't have done in the traditional band context. Having had to use the guitar to fit in with other sorts of sounds, the next step forward is to use the instrument in a way that can't be emulated by anything else. Take the saxophone: you'll never be able to replace that sort of instrument. You can get that sort of sound, sure, and it may sound OK some of the time, but you'll never replace the way that it *plays*. It seems to me that, over the next few years, there's going to be a greater demand for more versatile musicians.'

Moore: 'You can be a bedroom guitarist, and practise your scales every day, but you'll then find it takes time to adapt to a situation within a band, when you have to be very aware that other sounds are present.'

Tarn: 'Both Simon and Paul are going through a transition where their instrument stops being just an instrument creating a note, and starts to achieve a sound that fits into an overall musical collage. When you think of the number of different sounds a synthesiser will give you, you realise that you have to be able to do the same sort of thing with, for example, a bass. If you can't do that, then the bass end is always going to sound the same. If everything else is changing, you have to be able to change with it.'

With a prestigious touring support slot to King safely under their belts, and DJ Mike Read

plugging their single, 'Living in the Past', at every available moment, Drum Theatre have reason to be confident their approach to musicianship is paying off. But the reason they've already aroused such attention has little to do with music. To most people, Drum Theatre are a collection of strikingly-dressed young men who perform in front of colourful, unorthodox stage sets.

Benedict: 'I know a lot of serious "musos" won't take us seriously to start with, because of the way we look, but a gig is supposed to be about having a good time. It's not some mystical experience. I believe that if an audience can see a band are having a good time, they're far more likely to enjoy themselves.'

Musically, the band began their stage career using backing tapes and drum machines, but now adopt a completely live approach that's more satisfying than either of its predecessors.

Tarn: 'The first stage of the live six-piece involved using tapes, but we found we didn't actually need them. It was an attitude we had at the time: for some reason, we felt we wouldn't be able to reproduce all the little details live.'

'We also decided we wanted to use a Simmons kit, because they look really modern, so we had Myles standing behind an SDS7 playing along with the tapes. When we finally realised we didn't need the tapes, we used a percussion player — Andy Duncan — and that, along with a Linn, was the first-ever live line-up.'

'Seven people really was too many, so we thought that if we made more use of the Linn, we could manage without Andy. Then we decided we didn't like the Linn at all! We'd been doing some stuff in the studio with a full drum kit and it sounded great, so we thought "why are we mucking about with the Simmons when an acoustic kit sounds better?"'

'So we cut the Linn, sat Myles down behind his drum kit, which was what he was best at anyway, and

we were away.'

But while the concert stage has been friendly toward Myles Benedict's changes of stance, it's not looked quite so kindly on the multitude of unconventional instruments that had given Drum Theatre so much inspiration. Undeterred, they overcame the logistical problems, and now have a trick of their own up their sleeve.

Moore: 'It's impossible to take things like the mbira on stage because they're so difficult to mic up, though there are some with built-in pickups under development at the moment. But another problem is that it's really boring to watch someone play, it's like watching someone play keyboards.'

Tarn: 'The solution is to find a way of playing the sounds that you like and make it very visual. We've got something in mind, but it's still a closely-guarded secret at the moment. Come and ask us about it in six months' time! We first talked about it two or three years ago, and you can see something in the video for 'Living in the Past' that's our own design. Kent will be the first to use it as it'll use both his keyboard and drumming skills, and it'll involve sampling, but I'm saying nothing more at the moment.'

In keeping with the band's *penchant* for invention, even the Drum Theatre stage set and costumes are of their own design. On the clothing front, singer Tarn designs and makes clothes to match the band's colourful instruments, while the stage set consists of the cut up and gaudily coloured remains of a Morris Minor that once provided Tarn with a means of transport.

'I left it in King's Cross when it broke down one weekend, and when I came back it had been completely wrecked. At the time we were looking for a percussion rack that would look really good, so since it hadn't cost very much, we decided to cut it up and use it. In the end, it worked so well that we got a couple more!'

The moral? Don't leave *your* car unattended in London unless you want to see it on stage at the Hammersmith Odeon. ■



JORETH^{music}

MIDI Synthesiser Control

with the COMMODORE 64

● JORETH MUSIC COMPOSER SYSTEM

8 track, 6000 note, step/real time MIDI Controller with SCORE WRITER, MIDI & non-MIDI sync and expanding range of software additions.

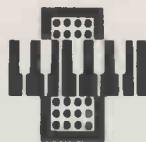
● TONE EDITOR for CASIO CZ synths.

Sound editing with full envelope graphics, in built sequencer and disc filing.

● PART LOADER ● KEY PROGRAMMER

... STOP PRESS ... STOP PRESS ...

- ★ The REAL TIME LINKER SYSTEM is now available
 - ★ The JORETH MUSIC SOFTWARE range is now COMPATIBLE with CARTRIDGE PORT MIDI INTERFACES (Jellinghaus, Siel, Microvox)
- RING 0386 831615 NOW FOR DETAILS OF THE COMPLETE NEW PRODUCT RANGE



JORETH MUSIC
PO BOX 20
EVESHAM, WR11 5EG

SOHO SOUNDHOUSE

Roland Main Dealer

ALPHA ONE JUNO Revolutionary Synth £499
SRV 2000 · TR 707 · TR 727 · BASS GTR SYNTH
TR 505 Digital Rhythm 100% IN STOCK £225 inc P&P

KORG Key Centre

DW 8000.....£895 DDM 110.....£169
DW 8000.....£865 DDM 220.....£129
POLY 800.....£389 SDD 1000.....£299
EX 800.....£189 SDD 2000.....£495
SQD.....£489 SH POLY 8.....£450

TASCAM Main Dealer

PORTA-ONE + FREE Power supply, programmable drum machine, headphones, JVC mic with cable, phono mixing adaptor, mini monitor, 5 cassettes and multitrack primer manual.....£399
244 as above £695 244, 234, 52, 34, 38 POA

CASIO Main Dealer

CZ 101 Polysynth.....£269
CZ 1000 Polysynth.....£399
CZ 5000 Polysynth.....£749
CZ 3000 Dynamic Polysynth.....£495
SZ1 4ch. Sequencer.....£249

AKAI Main Dealer

S612 Sampler.....POA
MD280 Disk Drive.....POA
ME 100 Midi Delay / Pitch Shift.....£99
ME20A Midi Sequencer / Arpeggiator.....£99
ME 15F Midi Dynamics Controller.....£99

Fender UK'S largest sales & service centre

NEW SIDEKICK 65 REVERB.....£249
70's "BLACKMORE" FENDER STRAT.....£265
FULL RANGE OF CONTEMPORARY GUITARS + NEW
SIX STRING "OLD TIME" AMPS IN STOCK

YAMAHA Hi-Tech Dealer

DX 100 FM Polysynth Mini Keys.....£349
CX 21 FM Polysynth.....£595
RX 21 Digital Drums.....£245
COMPLETE YAMAHA RANGE IN STOCK
STOP PRESS: DX27 Synth IN STOCK POA

SEQUENTIAL Main Dealer

PROPHET 2000 sampler IN STOCK POA
Multitrak inc extras.....£695
Tom Drums.....£479
Sixtrak.....£399

Fostex Main Dealer

X-15 New low price inc power supply.....£245
MN-15 Mixer.....£45 M450 Desk.....£POA
260 Portastudio NEW £650 M350 Desk.....£375
M 80 8-Track.....£POA 3070 Comp.....£225

ensoniq Oasis

Mirage inc Advanced samplers guide and extra software.....£1295
Mirage Xpander.....£POA
All accessories by mail.....£POA

CHROMA Main Dealer

Polaris Dynamic Keyboard, on board midi sequencing, split, layer. Born in the USA.....£1150

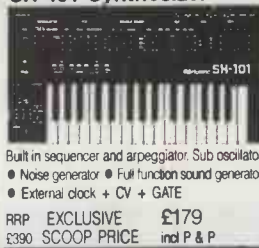
SESSION Main Dealer

SESSIONETTE 75 112 Combo.....£225
SESSIONETTE 75 210 Combo.....£245
SESSIONETTE 112 EXT. Cab.....£99
SESSIONETTE 112 4X12 BASS Cab.....£295

MAIL ORDER

Prices in all sections of this advert include speedy delivery to your door.

SH 101 Synthesizer Roland



Built in sequencer and arpeggiator. Sub oscillator
● Noise generator ● Full function sound generator
● External clock + CV + GATE
RRP EXCLUSIVE £179
£390 SCOOP PRICE incl P & P



inc FREE
Pitch Bend + Mod
Grip & leather strap.

MC-202 Microcomposer Roland

Synth. Full spec. SH101 SEQUENCER, 2 Ch. 2729 notes TAPES SYNC all in one
LAST FEW RRP £399 £159 inc P&P

MC4B 48K Microcomputer Roland

MC4B 48K Microcomputer Will control 8 CV synths or 4 MIDI syths through the OP8M ● Step or real time ● Professional edit facilities ● 11,500 notes.
OP8M Midi & DCB INTERFACE
RRP £1999 + BOTH UNITS £365 inc P & P
£500 = £2,499 TO CLEAR

ALL PRODUCTS ADVERTISED ABOVE ARE BRAND NEW BOXED UNITS CARRYING THE OFFICIAL MANUFACTURERS 1 YEAR GUARANTEE.

BOSS

BCB6 Case.....£75 RH11M Ph.....£49
BF2 Fl.....£62 TU12 Tun.....£44
CE2 Ch.....£74 TU12H Tun.....£47
CE3 SCh.....£78 BX400 41.....£85
CS2 Comp.....£60 BX600 6.2.....£129
DD2 Dig O.....£129 BX800 8.2.....£234
DF2 Df.....£57 RX100 Rev.....£129
DM3 An Del.....£70 DR110 Rh.....£149
DS1 Del.....£50 RDD10.....£149
GE7 GFE.....£74 RCL10.....£109
HM2 HM.....£49 RGE10.....£109
NF1 Nf.....£45 RRF10.....£109
OC-2 Oct.....£47 RPH10.....£109
PH1R Ph.....£78 CE300 Ch.....£199
SD-1 Sd.....£53 PSA 220.....£119
TW-1 Tw.....£63 ACA 220.....£116
PSM-5 Pwr.....£63 TU100 Tu.....£99
HA-5 Pb.....£89 PH2 Ph.....£82

SPECIALS THIS MONTH

Roland JSQ-60 Seq.....£35
Yam R-1000 Rev in Stock.....£449
Yam CX-5 Pack Lg. Kbd.....£295
Yam CX-5 Pack Sm Kbd.....£295
Yam TX-7 Exp.....£469
Yam CX-7.....£269
Yam D1500 Del 1 only.....£349
Tascam 234 Synchroniser.....£539
Tascam 38 Reel-to-reel.....£1849
Accessit Reverb.....£129
Accessit Compressor.....£49
Accessit Noise Gate.....£49
Carlsboro Kbd 9045.....£265/£190
Vesta Dig-411 Delay Line.....£195
Akai S612 / MD280+
Roland Mother KBD 300.....£1295

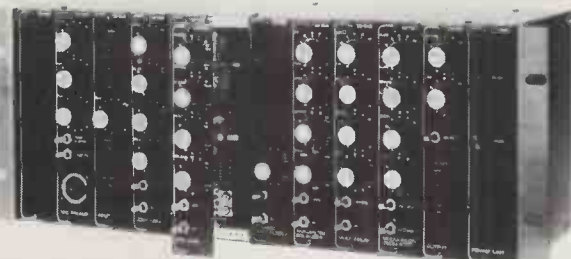
USED & OTHERS

S/H Yam CP 70B El Gd.....£1595
S/H Mini Moog CV GT.....£460
New Rhodes Chroma.....£1299
New Rockman X100.....£239
JXP3 Roland.....£550
S/H Rhodes Piano.....£199
S/H Moog Liberation.....£350
Roland Vocoder 350.....£495
Jen SX1000.....£109
Yam KX-88 Mother.....£799
Roland JC120.....£519
Akai AX80.....£595
Ram 10:8 New.....£599
Ram 16:8 New.....£675
Studiomaster 8:4 New.....£625
Seck 6:2 New.....£399

CALLERS: 18A SOHO SQUARE, LONDON W1V 5FB 01-434 1365



Experience TANRAK...



The complete modular outboard effects system goes DIGITAL

The Digital Sampler/Delay module features include:

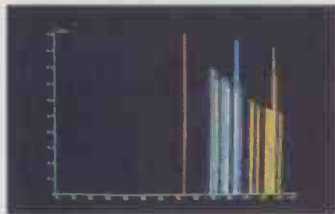
- 15 kHz bandwidth up to 1.4 sec
- Delay or Sampling up to 8 sec
- 86 dB input dynamic range
- Full sample editing and overdubs
- Single or loop play
- Wide range CV pitch control
- 'Velocity sensitive' dynamics

ALL FOR UNDER £300
(£299.95 including VAT - Ready Assembled)

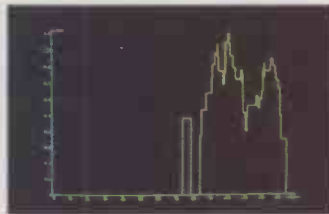
Other modules include:

Pro Gate	Psychoacoustic Enhancer
Comp Lim	Infinite Flanger
Dynamic Noise Filter	Mic Preamp
Multi Delay	Mixer Module
Modulation Oscillator	Phantom Power

ALSO AVAILABLE IN KIT FORM
Write or phone for an informative brochure: **tantek**
(Dept EMM), Business & Technology Centre, Bessemer Drive, Stevenage, Herts, SG1 2DX. Tel: (0438) 310120



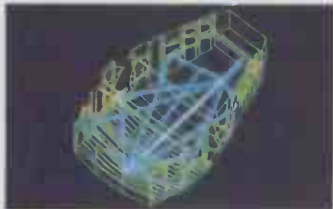
■ Early reflection graph



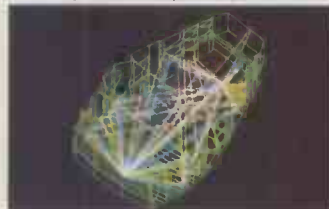
■ Perceived early reflection characteristics

Early Reflection Simulation Example Based On a Specific Hall Design

■ Hall simulation (1st reflection)



■ Hall simulation (early reflection pattern)



REV 7

The REV-7 is a highly professional, MIDI compatible, stereo programmable digital reverberation system. It is also an extraordinarily powerful studio effects unit.

Natural reverberation is the most complex of the 'time domain' effects to be replicate with true fidelity. It requires ultra-high speed circuitry capable of processing an immense amount of data very quickly. It also requires the implementation of very sophisticated software based on a thorough understanding of real-world acoustic responses. Thus, in the past, a top-quality digital reverberator has always been very expensive.

By designing their own purpose-built LSI (Large Scale Integration) micro-processors specifically to meet all these

Yamaha engineers have also built in the capabilities of virtually every other time-domain processor you can think of.

Within its memory banks are stored 30 factory preset effects which range from natural-sounding halls of various sizes through chorusing, delays, stereo repeats, flanging, phasing, flanged reverb, gated reverb, reverse gate and more. All these effects can be edited to a fine degree and there are another 60 user-memories in which to store your own creations.

Here are some of the adjustable parameters for a reverb effect:

1st Reflection 1 to 100ms after direct sound, 0 to 100% level) - the time delay between the direct sound and the first reflection.

Initial Delay 1 to 100ms) - the delay between the direct sound and the onset of reverberation.

Reverberation Time (0 to 10 secs) - adjustable over three frequency bands.

Diffusion (0 to 10) - the shape and proportion of a room will determine how spacious, or conversely how directional, its reverberant field is, irrespective of its overall reverb time. With this adjustment then, you are able to actually adjust the apparent shape of the room and definition of the sound source.

REVERBERATION PLUS...!



REV1

Alternatively, if you need the last word in quality, control, programmability and user-friendliness, the REV-1 is the ultimate studio machine for reverb and effects. Offering instant 'one-touch' access to memories and fine control of effect parameters, the REV-1 also provides variable display graphics to aid swift and subtle adjustment, keeping you fully informed at all times.

Programmes can include up to 40 early reflections and 99 secs reverb time (individually adjustable for 4 frequency bands). The full-function remote features a large graphic display of all parameters, and actually includes 9 RAM programme memories allowing you to carry your own REV-1 effects wherever your work takes you. There is also an RS-232 interface port for use with a PC as part of a computerised system.

No amount of words can fully describe the effects of either the REV-7 or REV-1 - you'll want to hear them for yourself. If you're not sure quite where to go for your hands-on demo, please contact Yamaha's Pro Audio Specialist, Alan Martin, on (0908) 71771. He'll give you the low-down on their new UK Stockist line-up and price guidelines for REV-1.

/// ALL OUR ENGINEERS AGREE THAT THE REV-7 AND REV-1 ARE EXCELLENT AND ARE IN CONSTANT USE. ///

CHRIS DUNN
BATTERY STUDIOS

/// REV-7 AND REV-1 ARE FIRST CLASS WITH A VERY HIGH GRADE OF CONSTRUCTION, VERY RELIABLE AND EASY TO USE. MY PERSONAL PREFERENCE IS THE REV-1 BUT BOTH FULFIL THEIR PURPOSE ADMIRABLY. ///

JOHN TYMMS
AUDIO RENTS

 **YAMAHA**
PRO - AUDIO PRODUCTS

● MOUNT AVENUE, BLETCHLEY, MILTON KEYNES, BUCKS, MK1 1JE
☎ (0908) 640202 24hr Ansaphone (0908) 649222

SOUND AN

Two new software packages – from Joreth and XRI – aim to make programming Casio's CZ range of synths that little bit easier. But is their presentation good enough to make them worthwhile? *Simon Trask*

There's just no denying it. Today's synths are just *no fun* to program. With their limited displays and digital access systems that are unfriendly to the point of being obstructive, they don't offer much incentive for *anyone* to make that trumpet just a little bit breathier, the piano a shade brighter, or a glockenspiel mildly more touch-responsive.

Which is where patch-editing software for home computers comes in. Taking advantage of the fact that the average TV can display an awful lot more than an overworked, underfed LCD, such software can show all the parameters of a synth patch at once, making editing an easier task by making it a more visually rewarding one. And a computer-based system can offer further attractions not directly concerned with editing, such as disk storage of sounds –

not for public consumption), it's been left to two of the best-known British MIDI software companies, Joreth Music and XRI Systems, to come up with the goods – for Commodore 64 and 48K Spectrum computers respectively. Both are reasonably cheap to buy, and both will work on any of Casio's CZ synths, from the baby CZ101 to the sequencer-laden CZ5000.

Before going any further, it's worth noting that Joreth's policy has been to sell their AL25 MIDI interface only with the Joreth MCS sequencer, which meant you were faced with having to buy the sequencer if you wanted the Editor. Luckily, this situation has now changed.

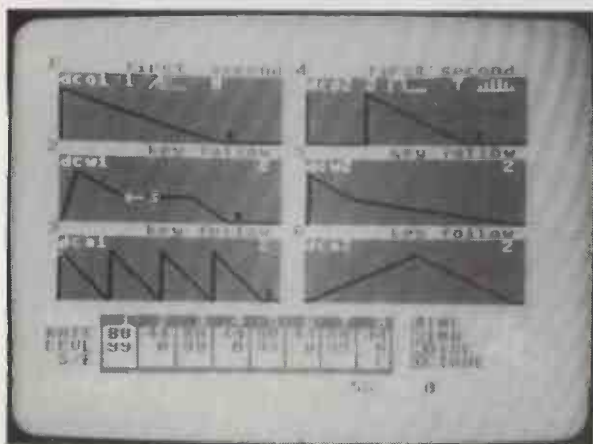
XRI's interface is also available as a separate item, but if you already own another company's interface, XRI will supply you with the necessary information to create

this is not a modern-day version of Music While You Work, but a useful way of being able to edit a sound while listening to the song you intend it for. An eminently sensible idea, though maybe the 4000 notes (which is far too many than you actually need) should have been split up to give several different sequences.

All editing is done from a single screen, and from the computer's typewriter-style keyboard only. Most of the parameter displays take the form of numeric inputs; the DCO, DCW and DCA envelopes are displayed graphically as well as numerically, but are altered from the numeric table rather than from the graphics, which is a pity. And bearing in mind the importance of presentation here, there's a real lost opportunity on the colour side of things: grey and white with the occasional yellow or blue character is not the most inspiring of colour schemes, and doesn't help to clarify the voice structure at all.

Still, if you're fortunate enough to have a printer, you'll be glad to know that the Joreth Editor allows you to print out a patch's parameters on ordinary paper – handy because it means you can carry the information around with you to studios and gigs, and show it to other people without having to set up the entire system.

JORETH



an appealing alternative to the cassette or cartridge options typically found on synths.

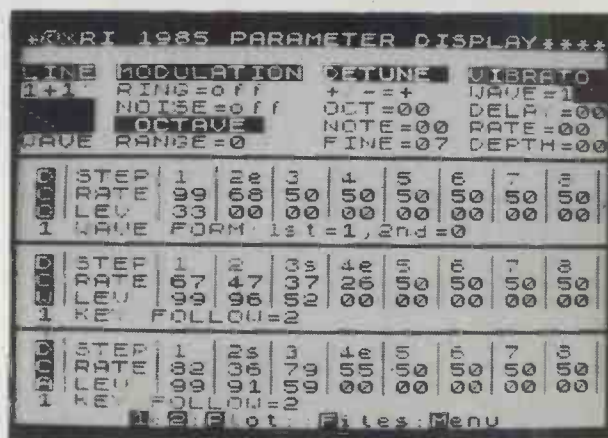
Casio's popular CZ synths are no better than the rest when it comes to front-panel editing facilities, and since the Phase Distortion principle they employ has more in common with a digital system than with the analogue one most synth players know and love, they aren't the easiest machines to get into. But it's taken a while for CZ Editing packages to appear – partly, no doubt, because of Casio's reluctance to release the relevant MIDI information. As Casio haven't developed any software themselves (at least,

a customised version of their CZ Editor.

Joreth's offering is disk-based, takes a not inconsiderable 90 seconds to load, and comes in two versions (on the same disk). One is designed to function within Joreth's MCS eight-track sequencing package, the other to function in a stand-alone capacity. The former is actually more of a 'librarian' than an Editor, because all editing still has to be done on the synth, and there's no on-screen display of parameters.

The stand-alone version allows you to record a sequence of up to 4000 notes, and then play it back while editing a sound. Nope,

XRI



XRI uses two screens. One is a display of all the voice parameters, and allows editing from the Casio's front panel only – with changes showing on-screen. There are no graphic representations, only rows of numbers. Now, I know it's valuable to be able to see *all* the parameter values at a single glance, but let's face it, many people go blank when faced with a whole mass of numbers on one display – a picture or two would have cleared things up nicely.

The second screen allows editing from either the synth or the computer, and displays data for the DCO, DCW or DCA

DIVISION

envelopes, depending on which you select. Thus you get not only the numbers again, but also the envelope shapes plotted for you in the lower half of the screen. You can choose to have these displayed individually or overlaid on one another; colour-coding would have come in useful in the latter case. You can 'redraw' the envelopes, but only by changing the numbers in the relevant table rather than on the graphic display directly.

But there's another side to both these packages – quite apart from their voice-changing facilities – that makes them a lot more useful.

Taking the Joreth first, we find the Editor allows 16 sounds to be held in memory at any one time (arranged as two banks of eight) in addition to the current 'edit' position and an extra temporary storage space. You can transfer single sounds and banks of eight or 16 between synth and computer, and sounds can be stored in any position in both the synth's and the computer's memory. Thus the Editor allows you to set up customised arrangements of existing sound banks – useful for aligning sounds with another synth, or stepping through sounds in the order you want to use them. And, of course, you can pull together completely new combinations of existing sounds that are suited to a particular application.

Disk operations allow you to load and save sounds, again either singly or in groups of eight or 16. It's also possible to format a disk, list the files on a disk, delete a file and rename a file from within the Editor. Transferring a 16-voice file between disk and computer takes a very reasonable 10 seconds.

Particularly useful is a page with the

tongue-twisting name 'Title Tones', which allows you to give a name and description of up to 20 characters to each of the 16 sounds in memory. These short pieces of descriptive poetry are then stored on disk along with the sounds, and are listed on the screen whenever a file is loaded from said disk. However, allowing for the fact that you might just want to search your ever-growing number of files for that perfectly-suited sound you know you've got somewhere, it would be handy if you could list the contents of a file without having to load all the patch data, and if you could load individual patches from any file to any patch position in the computer. How about it, Joreth?

XRI's Editor can store 128 patches internally, as four banks of 32. This is a healthy number which gives you instant access to, say, several different combinations of the same group of patches. It also ensures you don't have to bother about saving or loading sounds too frequently – though as anyone who has used computers will know, saving your handiwork regularly is the only safe path to true happiness and peace of mind.

Patches can be transferred between synth and computer either individually or in groups of 16, but it's a pity that individual sounds can't be stored in user-specified positions; though as it is, there's a Swap facility which allows you to alter the position of patches within the 128-voice memory, so you can get there in the end.

External storage is to cassette or microdrive, and is limited to 128-voice bulk dumps; the program comes complete with 112 voices on the reverse side of the tape.

There's no doubt many musicians still fight shy of music software, despite the many benefits to be had from using it. Much of this is to do with the fact that so much software looks complicated, even if it isn't. This is where a well-considered user manual can be invaluable, but as someone who has come

into contact with a fair number of manuals, I'm frequently dismayed/annoyed/frustrated by the lack of thought that goes into their compilation. A simple 'naming of parts' just isn't good enough; musicians deserve a contents list, an index, a discussion of the principles underlying the program and a few hints on how to get the most out of it – and this applies even to relatively straightforward programs like patch editors. Frankly, the manuals for these Casio editors both look as though they've been written by computer hobbyists who haven't really considered what musicians need to see. The XRI's manual is no more than a single sheet of paper.

Neither the Joreth nor the XRI has much to offer in the way of attractive displays, either, as the photographs should show. But it can be done: Yamaha's DX21 and RX Editors are a joy to use, mainly because their graphics are detailed without looking awesome. SIEL's Commodore and Spectrum packages are similarly friendly in the display department, so it isn't a question of these computers being incapable of presenting good visuals.

That said, both these programs do offer advantages over the Casios' front panel, not least because their patch storage and reorganising abilities could quickly prove invaluable. They don't come anywhere near saying the final word in what can be done, and both display a certain lack of imagination. But they are reasonably effective, and they're here now. ■

Joreth CZ Editor

Price RRP £44.85 including VAT

More from Joreth Music, PO Box 20, Evesham, Wores WR11 5EG. ☎ (0386) 831615

XRI CZ Editor

Price CZ Editor RRP £22.95 with tape of 112 sounds; (optional) Micon MIDI interface RRP £49.95

More from XRI Systems, 10 Sunnybank Road, Wylde Green, Sutton Coldfield, West Midlands B73 5RE. ☎ 021-383 6048



32 SECS

Bel BD320 DELAY LINE/SAMPLER

4 EIGHT SECOND CARDS

15kHz

SED
Studio Equipment Distribution

SOUNDS

**MORE FOR MUSICIANS EVERY WEEK.
AND READ BY MORE MUSICIANS THAN
ANY OTHER WEEKLY.**

SOUNDS' *Band Aid* editorial pages keep you bang up to date with weekly developments on the instrument scene.

SOUNDS' *Band Aid Classifieds* and *Band Aid Dealers* sections give you weekly access to the best equipment deals from private sellers and instrument shops around the country, put you in contact with like-minded players and provide essential listings of studios and other vital facilities.


And our *Rock Tech*, *Digi Tech*, *Tape Tech* and *Mega Tech* monthly features provide in-depth coverage of the major areas of instrument technology and the important trade shows without sacrificing *one jot* of readability.

**THAT'S WHY 84 PER CENT OF SOUNDS' MUSICIAN READERS
CONSULT OUR PAGES BEFORE BUYING A PIECE OF
EQUIPMENT.**

**THAT'S WHY SOUNDS SELLS OVER 50 PER CENT MORE COPIES
THAN MELODY MAKER EVERY WEEK.**

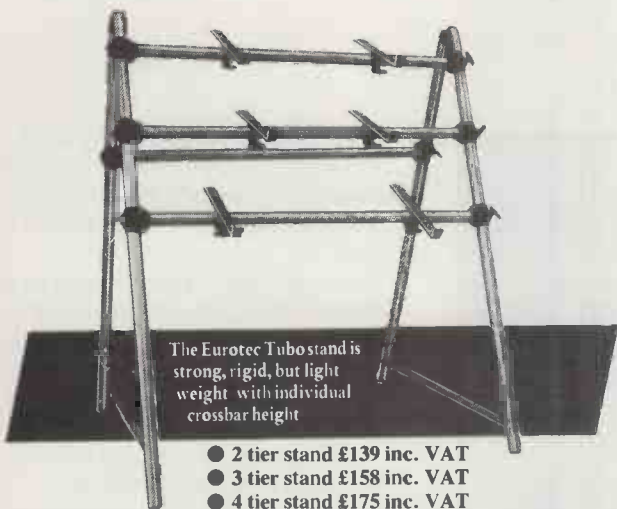
**THAT'S WHY SOUNDS CARRIES MORE INSTRUMENT
MANUFACTURER AND DISTRIBUTOR ADVERTISING THAN
ANY OTHER MUSIC WEEKLY IN THE WORLD.**

**THAT'S WHY YOU SHOULD BE READING
SOUNDS – OUT EVERY WEDNESDAY, PRICE
55p. IT MAKES SOUNDS SENSE!**



Standinovation.

To support a set of keyboards, you need a stand that's light enough for carrying and setting-up, and strong enough to hold up the heaviest keyboard. Because of its aluminium tube construction, the Eurotec Tubo stand is as sturdy and rigid as you want. With instant folding, easy-grip adjustment knobs and rubber padded support bars for width, depth and tilt, set up and disassembly is a doddle! Versatile too – the Tubo stand is suitable for keyboards, sequencers and computers. Give it a standing ovation!



The Eurotec Tubo stand is strong, rigid, but light weight with individual crossbar height

- 2 tier stand £139 inc. VAT
 - 3 tier stand £158 inc. VAT
 - 4 tier stand £175 inc. VAT
 - NEW – extra wide 3 tier stand £163 inc. VAT
- Send for free brochure now to:
18 Barton Way, Croxley Green, Rickmansworth,
Herts. WD3 3QA Tel: 0923 771110

SOLA SOUND

XRI SYSTEMS–MICON

MIDI FOR ZX SPECTRUM INTERFACE WITH TAPE/MIDI AND PULSE SYNC

- STEP SEQUENCER – music score + 24000 events, full edit, chords easily entered
- REAL TIME SEQUENCER – with correct, 10 sequences, patch dump, external drum mic.
- PRICE – £99.95 interface + software

- CASIO CZ VOICE EDITOR – wave forms graphics, dump to tape £22.95
- CASIO SOUNDS – library of 96 new voices to load into editor £12.95
- DX7/TX7 voice editor – graphics, wave forms dump to tape £24.95
- DX7/TX7 voice library – new sounds – save to tape £19.95
- HARDWARE EXPANSION KIT DX7 – increases the memory adding further 128 voices – £98.95
- JUNO 106 TOOL KIT – Plots library system £19.95

ALSO NEW RANGE OF SYNC CONVERSION BOXES EG. TAPE PULSE→MIDI MIDI TO TAPE ETC

10 SUNNYBANK ROAD, SUTTON COLDFIELD
WEST MIDLANDS, B73 6RE
FOR DETAILS SAE OR RING

021-382 6048
CLOSED WEDNESDAYS

At Last! A RAM & ROM Price Breakthrough



The Skyslip ROM Cartridge system is designed to enable cost-effective voice libraries to be developed by users. A facility to program EPROMs with custom voices may be available.

Supplied as a ROM Cartridge with a ZIF socket for ROM Modules, as well as comprehensive instructions. Cartridge £51.88. Add on banks 1/2/3/4/5 for ROM.

A wide selection of sounds are available on these banks at £15.41 each. ▼

▲ The Skyslip RAM Cartridge is designed to provide two banks of 32 permanent memories. Simple bank switching and automatic write protection are featured. An unlimited number of read/write cycles are possible. A 10 year battery provides stand-by power and can be replaced at the end of this period. Supplied as a RAM Cartridge which plugs into the DX7 Cartridge slot. No modifications are needed to the DX7. Full user instructions and hints on its use are included. Cartridge £59.99

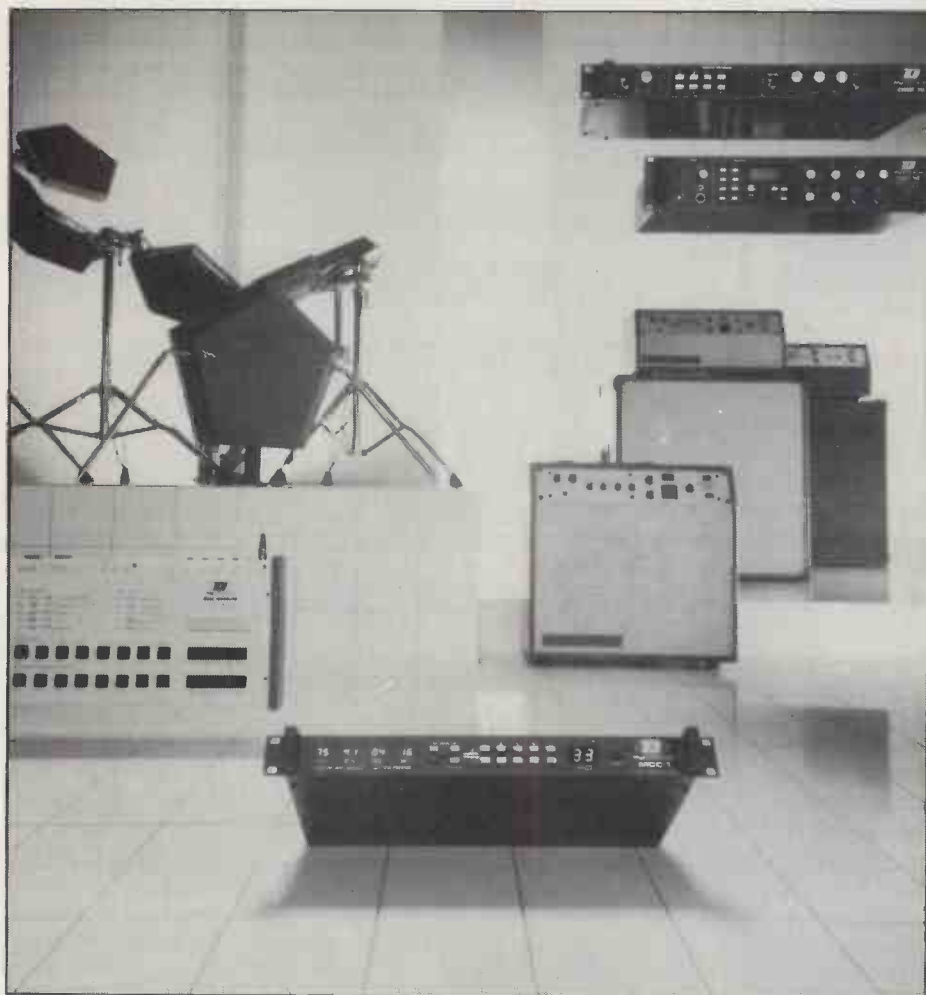
Trade enquiries welcome
for UK and abroad

Skyslip Music

10 Mosley Street, Newcastle-upon-Tyne, NE1 1DE.
Telephone: 0632 324175

A DIGITAL HIT

The Dynacord drum system is finally beginning to make its way into British shops, with some well-built pads and a voice module storing eight digitally-sampled sounds at its centre. *Nigel Lord*



though by no means as extensive as the complete catalogue from which they were chosen, which currently lists some 60 different drum, cymbal and percussion voices.

In essence, what we have here is a set of electro-pads triggering a central control unit which is, to all intents and purposes, empty of sounds until one or more of the plug-in ROM cartridges is inserted into any of eight sockets on the front panel.

If you've yet to be swayed by Audi's 'Vorsprung durch Technik' TV ads, Dynacord's drum pads will convince you there's nothing to match German standards of build quality consistency. They're beautifully designed, functional, and extremely robust. All of them have steel rims which, though they may look to some eyes as though they've been fashioned from carpet strip, are remarkably tough. Physically, at least, these are the best electro-pads currently available.

The snare pad is worthy of particular attention. It has two trigger outputs, one on the pad itself, the other on the rim. Dynacord have solved the problem of cross-triggering by suspending the inner pad from a 'skirt' of flexible rubber fastened to the rim, effectively isolating one from the other. This has the added advantage of making the inner pad truly 'floating' – it actually moves very slightly when you hit it, simulating the action of a real drum more closely than any electronic competitor I've tried.

The snare unit also features a Balance control to adjust the relative levels of the pad and rim trigger signals, and like all the other pads, is equipped with locking jack sockets to help prevent plugs being dislocated during a performance.

All the stands are off-the-shelf Tama models with a proven track record for sturdiness and durability, and require no further elaboration here.

Sadly, the Germans are guilty of a little excessive trumpet-blowing when it comes to naming their machines. 'Percuter S' is reasonable enough (though quite what it actually means, I'm not sure), but to describe the device on its front panel as an 'eight-track digital drum computer' is downright misleading. How can a piece of equipment which merely 'reads' the internal contents of

Dynacord's electronic drum system has been in existence, in some form or other, for over two years. It's a modular affair, with the basic digital drum voice unit (Percuter S – formerly just Percuter) designed for use with an add-on sequencer called the Big Brain and a custom sampling unit titled Boomer. Neither of the latter has

yet made it into the UK in any numbers, so when I unpacked the carton of review goodies from Dynacord's British distributor, I found myself with a complete set of pads and stands, an eight-channel controller and a whole bagful of plug-in voice cartridges, including bass drums, snares, toms, timbales and rimshots. Quite a wide range, in fact,

eight plug-in ROM cartridges be a computer? OK, some of the technology involved may have been derived from computer circuitry, but that isn't really enough. Similarly, the 'eight-track' part is rather confusing since 'track' is a word much more usually associated with tape or sequencer recording. Surely 'channel' would have been more appropriate?

Plugging in the cartridges is simplicity itself, with little or no room for error. The cartridges are as robust as the rest of the system, for unlike, say, those of the Simmons SDS9, these ROMs are totally encapsulated, with two short lengths of printed circuit board being used as connectors, rather than the pins of the chips themselves. That said, it's purely the thickness of the PCB metal which makes the connection, and I can envisage this being worn through with excessive cartridge-changing. Time will tell.

I can also envisage some cartridges getting plugged in upside-down (all too easy under stage lighting conditions, for example), and though no damage appears to ensue if this does happen, I'd have thought it easy enough for Dynacord to design a plug/socket combination which could only be coupled one way round.

The eight Percuter S channels are identical, which makes interchangeability of voices and pads very straightforward, and allows you to set up the kit itself in imaginative ways (like assigning the bass drum to the snare rim, for example). Controls on each channel are few, and comprise simply Sensitivity, Pitch (with associated on/off switch) and Pan.

These are all pretty self-explanatory, and anyway, only the Pitch control offers the musician any real say in determining the sound. A little control can go a long way, though, as the Pitch function's mammoth ± 1 -octave range (well, it's a lot in percussion terms) means that a snare voice, for example, can be taken from bass drum pitch to well above that of a timbale. The sound produced at these two extremes isn't always useful in the conventional drum-kit sense, mind you, and I found the control to be of far more value when used over a more limited range, to fine-tune each drum sound to a specific pitch. With this in mind, the on/off switch comes in useful in allowing you to compare the original drum pitch with the tuned version at a single touch. A master

Pitch control raises or lowers the pitch of all eight channels by a further half-octave.

Rear panel connections – in addition to the obligatory pad inputs and individual channel outs – comprise Mono/Stereo mix outputs, a Multi Trigger In (for connection to the Big Brain programmer), and a Remote Pitch socket, which, on connection to a footpedal, allows external control of the master Pitch function.

Unhappily, none of the eight or so cymbal and hi-hat sounds in the Dynacord range was present in the selection of ROM cartridges supplied for review. Given the demands a crash cymbal, for example, can make on a digital storage system, this was an unfortunate omission.

Undaunted, I went on to try all the cartridges I was supplied with, and this is how they sounded.

Natural Snare 8" had a good all-round quality, and succeeded in going quite deep. *Metal Snare 6½"* was hollow, quite dry and slightly damped; it didn't sound too much like a metal drum to me. *Rock Snare 1* was rather hollow and undamped, with a loose snare sound; a studio engineer wouldn't like it, but with a little reverb added, it could be quite useful. *Rock Snare 2* was a more extreme version of Rock Snare 1, which even I didn't like. *Electrified Snare 1* was short, with a slight pitchbend and little snare sound, yet it's probably more useful than it looks on paper. *Reggae Snare* was utterly wonderful – a very live sound with a pleasant metallic ring to it, and bundles of character. It works especially well when assigned to the snare rim. *Natural Rimshot* was good on the whole, despite lacking a little in the way of top end. *Handclaps* wasn't terribly convincing as an imitation of the real thing, but as a sound in its own right, quite useful. *Rock Toms 8"/10"/12"/13"* were generally very good, and surprisingly deep considering the size of the sampled drums. They had what I can only describe as a 'recorded' feel to them, so that you could almost hear the distance between the drums and the mic. But they are all different – it's nice to see they've been generated from recordings of separate drums, rather than simply one sample replayed at different pitches. *Natural Toms 10"/12"/13"/16"* had a simpler sound than the rock toms, but with plenty of attack. The 16" was a little dead, and all seemed slightly damped. Generally excellent, though, and again, all were samples from different drums. *Rock Bass* had a lot of snare noise added to it. Some might like it, but it didn't sound much like a bass drum to me: interesting, nonetheless. *Natural Bass* was nice and tight, with a pleasing slap. With clever use of the Pitch control, this could

provide a wealth of usable bass drum sounds. *Timbales 10" & 12"* were both very realistic, and cut through a mix beautifully.

Overall, then, an extremely high standard of voices – and I think it's fair to assume this is maintained across the entire range of Dynacord drum cartridges. You can't really challenge the realism of the sound itself because, presumably, all the recordings have been made from genuine instruments. What you can do with a number of digital drum systems is find fault with the quality of the recording and the instruments used, but I'm happy to report that Dynacord seem to have spared no expense here.

From an electronic drum standpoint, the weightiest, most annoying problem with sampled sound is the high level of quantisation noise which frequently accompanies digital recordings, but again, I'm pleased to report that on the Dynacord voices I tried, this was kept to an impressively low level.

An overall appraisal of this setup is a little difficult without the accompanying Big Brain and Boomer. Both machines have excellent paper specifications, and there seems little point doubting the integrity of their construction, but even so, I'll have to defer final judgement until we get our hands on some production review samples.

On their own, the Percuter S' accomplishments are clearly more modest. It's confined to digitally-sampled sounds, it's a bit on the expensive side, and it prevents you from doing much sound-changing of your own: if you don't like a particular factory sample, you're pretty much stuck with it.

Even so, I feel it's a system that has a lot going for it, particularly for those who don't wish to get too heavily involved in the sound synthesis side of electronic percussion. I know of no better set of pads, and Dynacord's habit of using metal where others use plastic is certainly to be applauded, especially on instruments that could well have to endure a hard life on the road.

As I write this, Dynacord are beavering away adding to their range of electro percussion products, preparing to unveil both the Rhythm Stick (a MIDI-based remote drum controller that you sling round your neck like a guitar) and the ADD-one advanced digital drum system at Frankfurt. If they're as well built as the Percuter S, the Germans will have a mighty professional percussion system on their hands. ■

Price Percuter S and pads, approx £1000, stands extra; cartridges £TBA
More from Washburn UK, 130 High St, Abbotsley, Cambs PE19 4UE. ☎ (07677) 648

Patch W.O.R.K

Right you lot, if you're still in two minds as to whether or not to send in your own synth sounds, we'll just mention that from now on, successful contributors to Patchwork will be awarded a free year's subscription to E&MM, commencing with the issue in which their patch is published. Not that most of you need any incentive, mind you, judging by the quantity of patches we've received since The Return of Patchwork was first mentioned last month. But when the Publisher is in an extra-generous mood (something to do with a horse), why argue?

Patchwork MkII incorporates reviews of sound libraries (cartridges, disks, cassettes, chips and so on) for all types of synths and samplers, so there should be something for everyone.

If you'd like to be included on our subscribers' list without having to fork out a penny, send us your favourite sounds on a copy of an owner's manual chart (coupled with a blank one for artwork purposes), include a brief description of your sound, and what musical purpose you feel it's best suited to – and don't forget to include your full name and address. Patches please to: Patchwork, E&MM, Alexander House, 1 Milton Road, Cambridge, CB4 1UY.

PARAMETER

LINE SELECT 1+2' <small>(1,2,1+2,1+1)</small>	MODULATION		DETUNE				VIBRATO			OCTAVE		
	RING	NOISE	+/-	OCTAVE	NOTE	FINE	WAVE	DELAY	RATE	DEPTH	+/-	RANGE
	OFF	OFF	-	2	00	07	1	00	00	00	+	1
	<small>(ON/OFF)</small>		<small>(+/-)</small>	<small>(0-3)</small>	<small>(0-11)</small>	<small>(0-60)</small>	<small>(1-4)</small>	<small>(0-99)</small>	<small>(0-99)</small>	<small>(0-99)</small>	<small>(+/-)</small>	<small>(0-1)</small>

1

DCO 1

WAVE FORM	
FIRST	SECOND
2	5
<small>(1-8)</small>	<small>(0-8)</small>

E N V (PITCH)								
STEP	1	2	3	4	5	6	7	8
RATE	50	50						
LEVEL	00	00						
SUS/END	SUS	END						

DCW 1

KEY FOLLOW
3
<small>(0-9)</small>

E N V (WAVE)								
STEP	1	2	3	4	5	6	7	8
RATE	99	01	30	28	25	50		
LEVEL	36	23	65	21	37	00		
SUS/END					END			

DCA 1

KEY FOLLOW
4
<small>(0-9)</small>

E N V (AMP)								
STEP	1	2	3	4	5	6	7	8
RATE	76	19	22	25	32	25	36	
LEVEL	87	90	40	71	36	48	00	
SUS/END							END	

2

DCO 2

WAVE FORM	
FIRST	SECOND
3	1
<small>(1-8)</small>	<small>(0-8)</small>

E N V (PITCH)								
STEP	1	2	3	4	5	6	7	8
RATE	50	50						
LEVEL	00	00						
SUS/END	SUS	END						

DCW 2

KEY FOLLOW
2
<small>(0-9)</small>

E N V (WAVE)								
STEP	1	2	3	4	5	6	7	8
RATE	99	31	36	31	40	50		
LEVEL	40	22	59	21	47	00		
SUS/END						END		

DCA 2

KEY FOLLOW
2
<small>(0-9)</small>

E N V (AMP)								
STEP	1	2	3	4	5	6	7	8
RATE	77	58	43	37	37	37	37	31
LEVEL	99	29	66	23	44	15	25	00
SUS/END	SUS							END

Casio CZ101/1000

'Koyaanisqatsi'

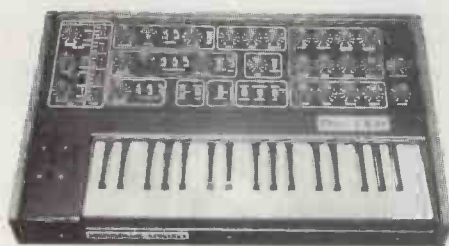
Michael Thydell, Sweden

The Casio CZ range seems to have a healthy Swedish following, as 'Koyaanisqatsi' follows the 'Starshine' patch from last month's Swedish contributor. Named after the film soundtrack by the doyen of systems music, Philip Glass (as if you didn't know), this patch consists of two sounds, mixed in 1+2 mode and therefore just four-note polyphonic. DCO2 is a good organ-type sound from the mid to top end (for the solo voice), while DCO1 provides the bass which is blessed with a distinct but nonetheless subtle amplitude envelope curve. Excellent for those Glass-like endlessly-repeating organ arpeggios – so long as you don't fall asleep listening to them.

SCI PRO ONE

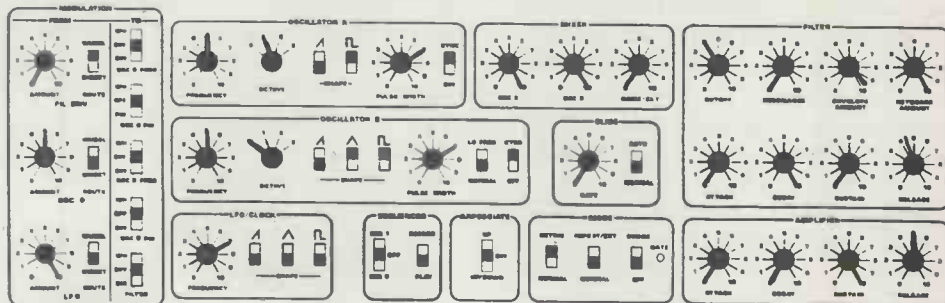
'Punchy Bass'

Sean Harvey, Middlesex



This one is modestly described by its creator as 'about the most powerful bass sound that can be achieved from this great synth'. We hope you agree. 'Punchy Bass' is another good reason why the humble monosynth is still so popular as a dedicated bass and leadline machine; could you get anything more aggressive out of a modern-day digital polysynth?

So dig out the cobwebbed Pro One from under the bed, dust it down and get programming. Remember that the older the fiddle, the sweeter the tune (or so our ad manager keeps telling us, anyway).



so you want to buy a CASSETTE MULTITRACKER

Any number of multitrack cassette systems now litter the market, at prices that range between £250 and over £1000. We present a buyers' guide for the bemused, the bewildered and the beleaguered. Paul White

Right, you've got your amp, you've got your woofers and tweeters and you've got your bag on your head. All you need now is a four-track cassette recorder and you'll be in business, a musician with a studio system you can call your own.

So what's the problem? Well, simply that there are far more cassette multitrackers around than you thought there were, that the differences between them don't stop at price and colour, and that suddenly, you've realised you don't know enough to make a purchasing decision with any confidence.

If you're anxious about throwing money the wrong way, the first thing you need to do is decide what you want your multitracker for. Do you want a musical jotting pad? Do you want to produce high-quality, finished demos? Or do you aim to record master tapes for private (or public) release?

The more you pay out, the better the quality of your recording is likely to be – though as always, a plethora of facilities never guarantees superior results. But if all you want is a versatile, reliable blackboard on which to chalk up your musical meanderings, there isn't much point aiming for supreme quality. And in any case, the limitations of the four-track cassette format are such that your recordings are never going to be sufficiently high in quality to put Abbey Road out of business.

OK, let's look at some of the options available. The first thing likely to affect sound quality is tape speed. A standard cassette runs at 1 $\frac{1}{8}$ inches per second, but in the interests of improving frequency response and noise performance, some multitrack manufacturers have opted to use a tape speed of 3 $\frac{3}{4}$ ips. Mathematicians amongst you will realise that this is double the normal speed, so tapes used

with these machines run for only half their usual time. In most cases, having buy twice as much tape is small sacrifice for the increase in sound quality.

A low level of background noise is essential for serious multitrack work, as you're likely to want to bounce two or three tracks down onto one in order to make room for more musical parts. And every time you do this, you add a bit of noise and lose a bit of quality. Unfortunately, the restricted width and low speed of cassette tape aren't really suited to keeping noise levels down, which leads us to the thorny topic of noise reduction.

All the most common NR systems use what's known as an encode/decode principle, which means you must both record and playback via the system to reap its benefits. Ignorance of this fact is the reason so many people complain that Dolby removes all the treble. In fact, Dolby emphasises low-level high frequencies during recording, and compensates for this on playback – so if you play a non-Dolby tape with the Dolbys switched in, of course it's going to sound as though it's being played back through a pile of old socks.

Anyway, I digress. The three most widely used noise reduction systems are Dolby B, Dolby C and dbx.

Dolby B is the most widely-used domestic form of NR, or to put it another way, it's what you're likely to have in your hi-fi unless you bought it recently (in which case you may have Dolby C). It gives a perceptibly lower level of tape hiss than a system with no noise reduction, but a badly aligned Dolby B can lead to undesirable treble loss, and the newer Type C gives a further reduction in background noise whilst seemingly causing fewer problems of its own.

dbx gives the best noise reduction of all in terms of paper specification, but it does seem to cause more noticeable side-effects than either of the Dolby systems. It works by heavily compressing the signal during

recording and then expanding it on playback, and if you were able to see the signal on the tape, you'd find that the difference between loud passages and quiet ones is much less than on a conventionally recorded tape. You should also realise that all these NR systems only suppress noise during quiet sections; when the music gets loud, the noise reduction has little or no effect because the music itself hides the noise. With dbx, you can sometimes hear the noise pumping up and down in level as the input volume changes, especially with bass instruments where there's little or no high-frequency content to mask the noise. In isolation this can be disturbing, but in a mix it's unlikely to be a problem. Percussion sounds, particularly those of drum machines, seem to lose their crispness when subjected to dbx, due to a variety of warmly disputed technical reasons which I won't go into here. That doesn't mean you can't record drum machines with dbx, but it does mean you have to be prepared for a slight tonal change, and maybe compensate a little by recording with a brighter tone to begin with.

I'd choose Dolby C, but there are a great many people who'd argue the other way, and I've yet to hear the updated dbx Type II. Try to get some first-hand experience before you buy by asking for a demo involving a drum machine.

Tape type is also a significant factor, albeit one that's often overlooked. Most cassette multitrackers are set up to work with CrO₂ (chrome dioxide) tapes, which give a wider frequency response than ferric types at the expense of additional head wear and, in many cases, a slightly inferior noise performance. Whichever you choose, make sure you stick to reputable brand names (TDK, Maxell,

Sony and the like) as quality can vary enormously even from batch to batch of the same tape. If the user manual says your multitracker has been set up for a specific tape type, stick with that whenever possible.

And so we come to the number of tracks that can be recorded in one take. To save money, the designers of many low-end multitrackers fit four sets of playback electronics but only two sets of record electronics. This means that although you're perfectly free to build up your composition in layers, you can't record more than two tracks at any one time. No problem if you're working on your own, but a drag if you want to record an entire band in one take. If you think you're likely to be in the latter situation, make allowances for spending a little more.

Facilities for equalising sounds (EQ controls to abbreviation fans, tone controls to members of the anti-jargon lobby) vary from non-existent to comprehensive sweep EQ on all four channels, depending, again, on the market area the multitracker occupies. If you're just jotting down musical ideas, the lack of EQ shouldn't bother you in the slightest, but if you want to produce a high-quality cassette master and are anxious to have as much control over the final sound as possible, you'll need the best system you can get.

The first step up from no EQ at all is a basic bass and treble arrangement, sometimes effective on just two channels so that it can only be used during recording. Better is the system that gives you an equaliser for each of the four channels, so that you can add tonal correction when recording and when mixing.

Top-line cassette systems offer two-band sweep EQs, which let you adjust the frequency at which the tone controls work to suit a particular instrument. This may sound like a gimmick, but it's an extremely worthwhile facility, especially if you're dealing with miked-up acoustic sounds as opposed to synthesised ones.

Finally, a few words on the other facilities higher-priced machines might have. Tape transport controls vary from old-style, mechanical piano key types to logic-controlled soft-touch buttons, the latter being easier and quicker to use, but more expensive and not necessarily any more reliable.

Tape counters, too, may be mechanical or electronic. Electronic counters with illuminated numerical displays are easier to read and usually

more accurate than their mechanical counterparts. Also present on nearly all the machines in this round-up is some form of speed control, enabling you to tune your recording to a non-standard instrument like granny's old upright piano.

Tascam's new top-of-the-range 246 Portastudio offers all these features, plus no fewer than six input channels, which makes it a true mixer-based system rather than just a tape recorder with a couple of tone controls tacked onto it. These extra channels come in particularly handy if you want to synchronise a MIDI sequencer to a timing track recorded onto one track of the recorder, as in this way, you can add several more synths to your recording at the mixdown stage and feed them through the two extra channels. Yamaha are obviously aware of this trend as their new recorder – the MT1X – has an extra input channel dedicated

send/return system, so that you can patch in external effects units. These allow you to add different amounts of effect to each tape track as you record or mix, and you can even use ordinary pedal effects for this purpose as the signal levels match home recording gear rather well: chorus units, delays and flangers lend themselves particularly well to electronic music production.

One last thing to check is that the machine you're considering has line outputs, so that the tape tracks can be fed into an external mixer rather than the built-in one. This can be a great help when you're doing serious recording work, as it's often possible to borrow a friend's mixer on the evening of an important mix and extend your facilities that way.

So, a quick look at a few of the machines currently available to see what they have to offer, and how they compare.



solely to processing timecode tracks without causing data corruption, a problem you may encounter with some noise reduction systems.

Also present on the better models (and totally absent on many of the lower-priced machines) is a comprehensive auxiliary or effects

TASCAM 144/244/234

The original Tascam (aka TEAC) 144 Portastudio was the machine that brought multitrack recording to the masses. At an average selling price of around £500, it actually cost less than most decent two-track mastering ►

cost is around the £650 mark, though a new model, the 260, is due to arrive on these shores in the Spring.



FOSTEX X15

Whereas the early Tascams and the Fostex 250 were merely inexpensive, the X15 was simply dirt cheap when it appeared just under three years ago. It's still in production today (now you can get one for around £250), features Dolby B noise reduction, and runs at 17½ips. You can only record on two channels at a time, but there are two sets of bass and treble controls, and a provision to plug in an optional switch to perform remote drop-ins. The X15 is easier to carry around than any of the more complex machines (though the batteries weigh a ton), and although it was originally intended to fall into the musical sketchpad category, a good percentage of the X15's many buyers have coaxed some excellent demos out of their machines.

TASCAM PORTA ONE

The Fostex-Tascam battle continues, with the Porta One being the latter's answer to the former's X15. It's already one of the most popular machines on offer, mainly because its compromise between facilities, quality and price

► machines, and was sufficiently well built for it to make a decent secondhand buy if you can find one cheap. It's now superseded and was limited to two-track recording. It used Dolby B noise reduction, though all later Tascam models were fitted with dbx. It ran its tape at 3½ips, and featured a four-channel mixer section with equalisers for all channels. The newer 244 Portastudio (about £750) lets you record on all four tracks simultaneously, and has two sweep EQs plus an effects send control on each of its four channels. If you don't want a built-in mixer, Tascam's 234 (£650) offers the same recording facilities in a 19" rack-mounting package.

FOSTEX 250

This was the Fostex company's answer to the Tascam Portastudio, Fostex being a firm set up by a breakaway group of ex-Tascam engineers in Japan about four years back. It features a 3¾ips tape speed, four-channel simultaneous recording and Dolby C noise reduction. Two-band EQ is fitted to each of the four input channels and there are auxiliary sends, as well as an electronic tape counter and a handy return-to-zero facility that ensures the tape rewinds back to the start of your recording automatically as soon as you push the appropriate button. Average



(around £425) is a good one. Whilst you can only record on two channels at any one time, you do get a proper four-channel mixer with two-band EQ and an auxiliary send on each channel. dbx noise reduction is used and the tape speed is 1½.

YAMAHA MT44D

This is the successor to Yamaha's first bash at a cassette multitracker, the MT44. Like its predecessor, it takes an unusual approach in that it has no built-in mixer at all. This gives you the option of getting as simple or as complicated a mixer as you need (and can afford), and just to make sure you don't go off spending your money with rival manufacturers, Yamaha also make a couple of custom-designed mixers. The MT44D runs at 1½ips, and has a switchable (between Dolby B and C) noise reduction system. The real-time tape counter is electronic, as are the input level meters (very sexy), and you can record on all four tracks at the same time if you have a mind to. Average price is around £400.

YAMAHA MT1X

Yamaha's latest four-track cassette system (not yet in the UK in any numbers) sees the company switching allegiance to dbx noise reduction, but maintaining their preference for a 1½ips tape speed. Despite its budget price, the MT1X will happily record on all four tracks in one go if you want it to. Each channel has two-band equalisation and an auxiliary send control, and the tape transport incorporates a return-to-zero facility. Apart from its space-age styling, this machine appears to break no new ground except for the fact that it has that extra input channel for recording timecodes onto tape without corruption. We haven't, as yet, had an MT1X to play with, but it's worth checking out, especially if you're into MIDI sequencers and synths. RRP will be just under £450.

VESTA FIRE MR10

This is one of the latest and least expensive machines to hit the market, and comes from a Japanese (what did you expect?) company with a long history of making outboard effects gear. It uses dbx noise reduction in conjunction with a tape speed of 1½ips, and allows up to two channels

to be recorded at any one time. The two EQ sections can only be used during record, not during bouncing or mixing down. Unusually, this machine has extra auxiliary line inputs, and two RIAA phono inputs for connection to a record deck. All in all, a surprisingly flexible machine for an RRP of under £285.

sister publication, *Home & Studio Recording*. Other systems available include Clarion's sophisticated XD6500, the first multitracker I know of to feature dbx Type II noise reduction; the Cutec MR404 (about £480), a budget machine with old-style dbx and a 3¾ips running speed; and two machines distributed in the UK by John Hornby



TASCAM 246

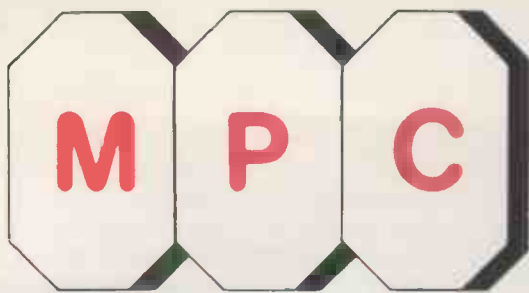
This is Tascam's latest model, and is one of the few personal multitrackers to go upmarket in the interests of offering more facilities. The 246 has six input channels, comprehensive routing and monitoring, and a flexible tape transport system that includes return-to-zero, cue memory, and automatic cycling between programmed points for practising drop-ins. Probably the most sophisticated cassette multitracker currently available – a fact reflected in its average selling price of around £1000.

The above list is by no means exhaustive, as in the main, I've stuck to machines I've become familiar with in the course of my duties editing *E&MM's*

Skewes, the Audio Technica RMX64 (£1100), similar to the Tascam 246 in that it offers a six-channel mixer section, and the Teczon TG44, another budget machine costing about £425.

Whichever system you choose, remember that it'll only ever perform as well as its operator: it's up to you to keep the heads clean and to feed it with decent tapes. The results you obtain will also depend on your understanding of the machine and the recording process in general: this includes things like knowing what recording levels you can get away with for different instruments, and planning which tracks to record in what order.

One thing is certain, though. No matter how much time you devote to choosing a four-track cassette machine, and how much money you spend on it, it won't be long before you're feeling the urge to move up to eight-track. Addictive, this recording business. ■

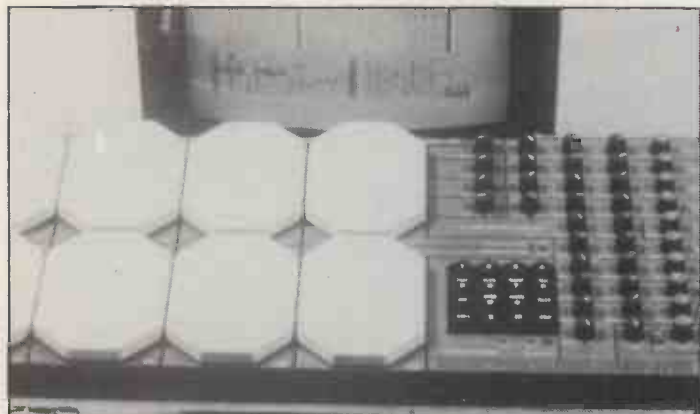


ELECTRONICS LTD

'Tomorrow's Designs Today'

★ GRAND FACTORY CLEARANCE SALE ★

THIS IS A ONCE ONLY STOCK CLEARANCE SALE AND ALL ITEMS **MUST BE SOLD BY 5TH APRIL ON A FIRST COME FIRST SERVED BASIS: ORDER IMMEDIATELY TO TAKE ADVANTAGE OF THESE ONCE IN A LIFETIME BARGAIN OFFERS:**



Computer Interface for ZX81 Spectrum Comm. 64
(please specify) **£19.95 + 50p carriage**

MUSIC PERCUSSION COMPUTER

- Eight touch-sensitive and durable playing surfaces.
 - Ten drum, cymbal, and percussion sounds.
 - Combination drum kit, computer, recorder, sequencer and mixer.
 - Individual outputs for recording, master mix stereo output.
 - Individual volume, pitch and decay controls on all drums and cymbal voices.
 - Headphone output with level control.
 - Housed in sturdy built-in flight case with mike stand adapter installed.
 - Full tape and sync facilities.
 - Computer interface with graphic display readout on TV monitor.
 - Program in real time or step time.
 - Compose bars, sequences and drum 'songs'.
 - Over 500,000 bar memory capacity per song.
 - Commodore 64, Spectrum 48K or ZX81 interface.
- 'Once seen it is ultimately usable, aggravatingly addictive and priced at a figure that is beyond belief.'

SOUNDS

'The M.P.C. is an extremely well crafted, cleverly designed unit, that makes good use of the home computer link up.'

E&MM

£99.95

+ CARRIAGE £5.00

NORMAL PRICE £299.95

(ONLY 125 LEFT)

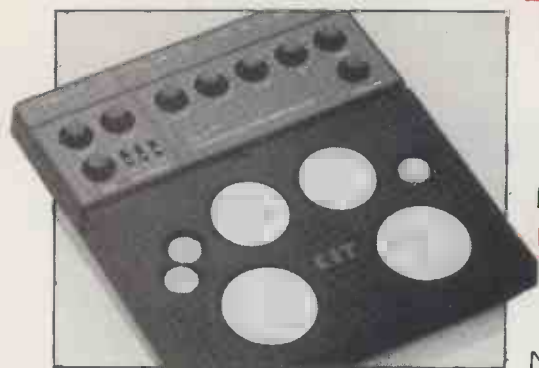
STAGE BOX FOR LIVE PAD CONNECTION TO MPC

£9.95 + carriage £1.00

TRIGGERING BOX FOR EXTERNAL TRIGGERING FROM MPC

£4.95 + carriage £1.00

(ONLY 35 LEFT)



THE KIT

£39.95

+ CARRIAGE £2.50
(ONLY 75 LEFT)

NORMAL PRICE £69.95

KIT B/DRUM PEDAL

£4.95

+ CARRIAGE 50P
NORMAL PRICE £12.95



'CLAP'

ELECTRONIC HAND CLAP

£14.95

+ £1.00 CARRIAGE
NORMALLY £39.95
(ONLY 85 LEFT)

TYMP/SYNKIT

Electronic Tympani or Syndrum effects units

£9.95

+ £1.00 CARRIAGE
NORMALLY £29.95

'Easily the best synthetic drum sounds I have yet heard' **SOUNDS** 'Highly inovative... the bass and snare are superb'
MELODY MAKER 'The sounds can be very authentic...' **E&MM** 'The Kit works very well' **INTERNATIONAL**

MUSICIAN 'The Kit literally lets your fingers do the walking' **ROLLING STONE MAGAZINE**



Mel Gaynor of Simple Minds

LIVE STAGE PADS

CHROME/RED

£9.95 EACH

CARRIAGE 50P EACH **NORMALLY £19.95 EACH**

DOUBLE TOM TOM STANDS

£14.95 EACH

+ CARRIAGE £1.50 **NORMALLY £29.95 EACH**

5 PAD SETS

CHROME/RED (4 PADS + BASS DRUM UNIT & LEGS ETC)

£49.95

+ £4.80 CARRIAGE

(35 CHROME SETS - 10 RED SETS ONLY LEFT)

NORMAL PRICE £119.95

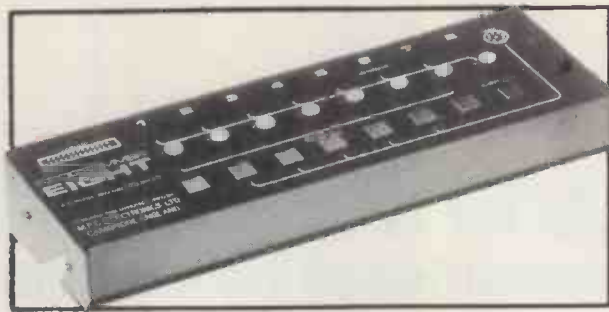
'L' BAR & MULTICLAMP £4.95

+ CARRIAGE 50P **NORMALLY £9.95**

PROGRAMMER 8

A rhythm sequencer for electronic percussion with interface to: Commodore 64, Spectrum 48K or ZX81. Provides, dynamically variable trigger outputs for driving: D.S.M.'s, Simmons, Linn, Dynacord, Pearl, Tama, Cactus, U.P., Drumulator, Digisound, Roland etc. 'The programmer 8 system is incredibly easy to use'

E&MM - FEBRUARY '85



£49.95

+ Carriage £2.50
INCLUDING
INTERFACE
NORMAL PRICE
£149.95
(ONLY 50 LEFT)

MAINS 'POWER PACK' SUPPLY UNIT FOR KIT/CLAP ETC

Also for use with guitar effects pedals etc
★ 4 Outputs ★ 9V DC ★ 200 M.A.
★ Voltage Controlled ★ Hum Free

£7.50 + 50p CARRIAGE
NORMAL PRICE £13.95

THE SYNC TRACK

The 'Sync Track' is a unit specifically designed to provide a tape sync facility to units that only have a clock input/output. An example of such units are:

- Roland TR 606 Drumatix
- Roland TR 303 Bass Line
- Roland TR 808 Drum Machine
- Roland CSQ 600 Sequencer

It can also be used with various keyboards with arpeggio clock inputs.

£19.95 + £1.00 carriage
NORMAL PRICE £34.95

'3' UNIT 19" RACK MOUNT FLIGHT CASE £20.00

+ £2.50 CARRIAGE NORMAL PRICE £39.95

CODE		PRICE	CARRIAGE		
MPC	Music Percussion Computer	£99.95	£5.00	PC	Stage Pad Chrome £9.95 £0.50p
CIZ	ZX81 Interface	£19.95	£0.50p	SPR	4 pads + B/drum red £49.95 £4.50
CIC	Comm 64 Interface	£19.95	£0.50p	5PC	4 pads + B/drum chrome £49.95 £4.50
CIS	Spectrum Interface	£19.95	£0.50p	DTS	Double Tom Tom Stand £14.95 £1.50
S.B.	Stage Box for connecting up to 11 pads to MPC for live playing	£9.95	£1.00	LMC	'L' bar & multiclamp £4.95 £0.50p
T.B.	Trigger box for use with MPC to provide 8x trigger outputs	£4.95	£1.00	Programmer Eight Rhythm sequencer with choice of interface for	
KIT	The Kit Drum Machine	£39.95	£2.50	P8Z	ZX81 £49.95 £2.50
KB	Footswitch Bass Drum unit for kit	£4.95	£0.50p	P8C	Comm 64 £49.95 £2.50
CP	Clap, variable hand clap device	£14.95	£1.00	P8S	Spectrum with choice of interface £49.95 £2.50
TY	TYMP, Electronic Tympani effect	£9.95	£1.00	PP	Power Pack, 4 way 9 volt 200mm power supply £7.50 £0.50
SYN	Synkit Budget Drum Synth	£9.95	£1.00	S.T.	Sync Track Sync to Tape/ Tape to Sync £19.95 £1.00
PR	Stage Pad Red	£9.95	£0.50p	3UFC3	Unit flight case for 19" rack modules £20.00 £2.50

ALL PRICES INCLUDE VAT

SEND: £1.50 FOR DEMONSTRATION CASSETTE OF M.P.C. PRODUCTS + FULL COLOUR BROCHURES

ORDER FORM: Please send me

Code	Price Each	Qty	Total Price
Total combined price plus carriage			

Name _____

Address _____

Post Code _____ Tel _____

**IF YOU WISH TO COLLECT
GOODS FOR CASH.
TELEPHONE: 0223-862711
AND ARRANGE APPOINTMENT
WITH SALES STAFF**

I enclose cheque/PO/cash to the value of £ _____ Signed _____ Date _____

Please make cheques payable to: MPC Electrical Services and write your name and address on the back. Please allow up to 28 days for delivery. Thank You.

RETURN YOUR ORDER FORM TO: MPC ELECTRONICS LTD, THE GABLES, STATION ROAD, WILLINGHAM, CAMBRIDGE CB4 5HG

SELL IT FOR NOTHING

with a free classified ad in Electronics & Music Maker

Keyboards

ARP ODYSSEY duophonic keyboard, twin-oscillator, ring modulator, versatile modulation facilities, many external connections, good condition. £250 ono. ☎ (0705) 475945.

ARP SOLUS synth £100, Roland Bassline £100 ☎ 061-860 5464.

BIT ONE vgc, 10 months old, cash needed £595, ☎ (0782) 722076 after 6.30pm.

CASIO CT202 49 presets, phaser and Boss DR110 drum machine, £165 ono (will separate). Alastair ☎ 01-950 2882 evenings (Watford).

CASIO CT202 £125. MicroMoog + case £125. Postex A8 £850. TEAC mixer £80. Pair 2x12s £70. All ono. ☎ (0222) 395377.

CASIO CT202, Jen SX1000, Yamaha MR10, all excellent; exchange for SIEL PX Piano, same. Nigel ☎ Barnsley (0226) 719203.

CASIO CZ101 digital synth, mint condition, £230. ☎ Harrogate (0423) 509163.

CASIO CZ5000 + stand, £735. DX7 + RAM £875. Jupiter 6 + stand £785. Cube 40K £155. SCI MIDI interface £50. The lot £2400 ono. Kevin ☎ (0992) 39775.

CASIO CZ101, nine months old, vgc £300 ono. Also Casio 403, £130. ☎ Atherstone (08277) 3736 after 6pm; Coventry (0203) 552611 daytime.

CASIO MT70 includes power supply, light pen, bar code, songs and manuals, excellent condition, £130 ono. ☎ (0709) 551004.

CASIO 1000P with volume and sustain pedals, excellent condition £185. ☎ Penketh (092 572) 3301.

CASIO 1000P still boxed with manual and music stand, £150 ono. ☎ West Yorkshire (0977) 82408.

CASIO VL1 never gigged! £5. Bass synth pedals with carry-case, £45. ☎ Romford 44404.

CAT SRM duophonic synth, 5 oscillators, home use only, unused four years, vgc, £210 ono. Kevin ☎ Leeds (0532) 451429.

CRUMAR ROADY electric piano, two piano voices, vibes, harpsichord, sustain pedal, case, excellent condition, £140 ono. ☎ (0827) 874054.

ELKA X55P with Thomas synth mono combined three keyboards or can separate, £500 ono. ☎ Tunbridge Wells 45946.

EXCHANGE MOOG Source for TR909 or Casio CZ101. lan ☎ Southampton (0703) 778276 after 6pm.

JEN SYNX 508 poly, 64 memories, new, boxed £350, swap for Poly 800, CZ1000, same condition, original memories. ☎ 061-320 6466 after 6pm.

KEYBOARD STAND 3-tier, professional, lightweight, cost £130, will take £50 ono. Mike ☎ 01-249 5297 eves.

KORG BX/3 drawbars, percussion, key click, stand £650. Korg BPX3 bass pedals, £160, complete. Keith ☎ Notrm (0602) 603319.

KORG DELTA poly + stand with extension £295. PSS50 digital backup, £265. Mint condition, ungigged. Tony ☎ (0203) 310808.

KORG DW6000 6 months old, hardly used, mint condition, plus keyboard stand with extension, £525 ono. ☎ Rugby 814474 after 6pm.

KORG MICRO PRESET in mint condition, £80. Simmons Claptrap in mint condition £20. ☎ Bracknell 429188.

KORG MONO/POLY vgc. patchcard, manual, sync leads, built-in arpeggiator, detune, effects sections, £250. John ☎ Merseyside 051-342 2942.

KORG MONO/POLY excellent lead/solo synth, sound quality unmatched by 'modern' keyboards, £195. Dave ☎ Coventry (0203) 453364 evenings.

KORG MS20 synth, mint condition, £180. Selmer Bassmaster valve amp £25, offers welcome. ☎ Maidenhead (0628) 29829.

KORG POLYSIX £400 ono. Korg MS20 £125 ono. Wanted: Moog Source, Roland TR727, possible p/ex. Andy ☎ (0202) 740034.

KORG POLYSIX hard case, original programs, scratched on back but otherwise in good condition, £400. ☎ 01-689 8372.

KORG POLYSIX fully programmable synth, perfect working condition, £465. ☎ 051-427 3222.

KORG POLY 61 £340. Rhodes 73 £210. E-Harmonix octave multiplexer £25. AKG DI90E mics £30. All good condition. ☎ (03473) 777.

KORG POLY 61 f/case, manual, patch book. Exchange DX9, JX3P, 106, straight swap. ☎

Southampton (0703) 444078.

KORG POLY 61 home use only, £350 ono. Roland SH101 £120 ono. ☎ Halifax 883025.

KORG POLY 800 Poly 61, KPR77, KMS30, Roland SH101, adaptors, manuals, boxed, home use only, complete £1100. Demo ☎ Southend (0702) 67389, pm.

KORG POLY 800 home use only, hard case, power supply, leads, etc. £320. ☎ Basildon (0268) 411890 after 8pm.

KORG POLY 800 £300. Yamaha RX15 drum m/c £300. Boss BX600 mixer £75. All excellent condition. ☎ Stubbington (0329) 665134.

KORG POLY 800 immaculate, boxed, 50 new sounds, £290. ☎ Wellingborough (0933) 227584 weekends.

MAPLIN 3800 synth, slight attention needed, £100. Roland Bassline £50. Patrick ☎ 01-679 3180.

MAPLIN 5600S fat 4VCO sound, complex modulation, patchboard, stereo output, bargain £300 (cost £700). Laurence ☎ 01-341 8348 daytime.

MONO SYNTH 2VCOs. VCF, envelope, noise and random generators, patching switches, etc. £70 ono, swaps. John ☎ Liverpool 051-480 2245.

MOOG OPUS 3 synth with f/case, good condition, £295 ono. lan ☎ 031-663 7015.

MOOG OPUS 3 immaculate, home use only, £235. ☎ Walton-on-Thames (0932) 231617.

MOOG PRODIGY good condition £120. Also System 100M with rack modules 110, 140 and Poly keyboard. Offers ☎ Ashington, Northumberland 819022.

MOOG PRODIGY II synth, immaculate, home use only, £150 ono. Andrew ☎ Plymouth (0752) 362414.

OVERHEIM OBI great bass/lead sounds, eight memories, flightcase, £375. Roland CSQ600 sequencer £125. ☎ 01-281 1918.

OVERHEIM OBXA f/cased, offers ☎ 01-452 6229.

OSCAR mono (MIDI), with f/case, £400 or offers. Casio CZ101 (2 RAMs) £300 ono. Chris ☎ 01-995 3381 after 7pm.

OSCAR programmable duosynth, immaculate, home use only, £300 ono. Mark ☎ (0935) 824738.

OSCAR programmable duosynth, as new £395. ☎ 01-868 0331.

OSCAR MIDI monosynth, plus Roland TR606 Drumatix, home use only, will sell separately. Both for £400. Dean ☎ (0594) 60325.

ROLAND JUNO 6 perfect condition, hard case, £300. Can deliver. Steve ☎ Durham (0385) 782377.

ROLAND JUNO 60 plus JSQ60 polyphonic sequencer £595 or swap for Juno 106. Dave ☎ Coventry (0203) 453364 evenings.

ROLAND JUNO 106 hardly used £495. ☎ (02214) 67533.

ROLAND JUNO 106 £440. Fender Bass amp £65. JBL Bass cab £65. Wal Custom Bass £450. ☎ Winchester 61083.

ROLAND JUNO 106 2 months old, as new, stand, case, everything £550. Write to Wilson Chiu, St John's School, Leatherhead, Surrey.

ROLAND JUNO 106 immaculate condition, £465 or swap for Juno 6 + cash. Can deliver 100 miles Leicester ☎ (0533) 715154.

ROLAND JUPITER 4 just had £75 service, vgc, £299. DRI 10 £80. Yamaha MR10 £30. Both as new ☎ (07842) 42301.

ROLAND JX3P, Pro One, £475 ono and £180 ono. Both excellent condition ☎ 091-281 8852.

ROLAND JX3P £450 excellent condition, boxed. Boss DR55 drum m/c £30 ☎ Woking (04867) 87321.

ROLAND PROMARS excellent lead or bass synth, monophonic with 8 programmable memories. £150 ono. Damian ☎ (0233) 24946.

ROLAND MKS10 piano module, one month old, £450 or near offer. Roland EP11 electric piano £190 ☎ 01-570 4205.

ROLAND MODULAR SYSTEM two cabinets, eight modules, £1000 ono. Chris ☎ 01-341 4473.

ROLAND SH09 monosynth, excellent condition, lovely noise, £150 ono. Andrew ☎ Plymouth (0752) 362414.

ROLAND SH101 and CSQ100 real-time sequencer, perfect working partners, excellent condition, together £180. Phil ☎ (0909) 563564.

ROLAND SH101 excellent condition £150. Boss DRI10 as new £90. Boss PC2 £30. Mark ☎ (66) 42886 after 7pm.

ROLAND SH101 monosynth with sequencer, still boxed, as new, only £165. ☎ Plymouth (0752) 667857.

ROLAND SH2000 preset synth £150. HH K100 instrument amp top £90. Marshall PA50 amp top £80. ☎ Lincoln (0522) 752458.

ROLAND SYSTEM 100M six modules, two large racks, four-octave keyboard, home use only, £695 ono. Martin ☎ 01-788 2416.

ROLAND SYSTEM 100 keyboard, expander, sequencer £270 ono/swap. Also HH 100W amp £100. ☎ Lancs (0257) 452303.

ROLAND SYSTEM 100 patchable synth, extremely versatile keyboard and expander, in good condition £200. ☎ 01-533 0827.

ROLAND VOCODER PLUS strings, human voice, stereo, f/case, £495 ☎ (0703) 771534.

SCI PRO ONE + Amdek drum m/c, £165 + £25. Both mint, boxed. Swap for TR909 with cash difference. ☎ (0705) 545704.

SCI PRO ONE £150. Just serviced, immaculate condition. ☎ 01-228 6028.

SCI PROPHET 600 with f/case and manual £800 or offers. Chris ☎ 01-995 3381 after 7pm.

SCI SIX-TRAK and Roland TR808, both boxed and in perfect condition. Offers ☎ Milton Keynes (0908) 569732.

SCI SIX-TRAK £400. DX9 £450. Revox A77 high-speed £150. All good condition. Alan ☎ Kettering (0536) 725885.

SCI SIX-TRAK £450. SCI Drumtraks £500. Tascam Porta-One £300. Richard ☎ 01-647 6657.

SCI SIX-TRAK, Model 64 sequencer + 910 expansion, £500. Roland Bassline + MC202 £150. All as new ☎ (0225) 65207 or 65744.

SCI SIX-TRAK home use only, 7 months old, custom f/case, manual, bargain at £400 ono. ☎ 01-582 8548.

SPECTRUM SYNTH fully working mega-mono, £110 or p/x CZ1000/Poly 800. Alex ☎ Cheltenham 514533.

SPECTRUM stereo synth, amazing Maplin/E&M design, £180. JHS polyphonic harmoniser, built-in monitor, £300. ☎ Leigh (0942) 605053.

SWAP DX9 flightcased SH101, MC202 Micro-composer plus Revox A77 stereo tape recorder, for DX7 in any condition! ☎ (0707) 324079.

SWAP MOOG SOURCE for Poly 61, Tascam 244, TR909 or anything interesting. lan ☎ (0703) 778276 after 6pm.

YAMAHA CP20 electric piano, weighted action, like PF15, self-contained case, good condition £295 ono. lan ☎ 031-663 7015.

YAMAHA CS01 monosynth with breath controller, only six hours' use, £35 ono. Bass pedals £45. ☎ Romford 44404.

YAMAHA CS30 synth, 2xVCOs, 2xVCFs, 3XEGs, 8-step sequencer, gone MIDI so offers welcome, home use only. Graham ☎ Humberstone (04302) 2700.

YAMAHA DX7 with accessories and f/case, as new, home use only, £895 ono. ☎ Byfleet (09323) 43179.

YAMAHA DX7 £900. Casio CZ101 £200. Roland Drumatix £90. Great British Spring £100. Home use only. ☎ (0239) 711032.

YAMAHA DX7 recently acquired, perfect condition £1025. ☎ Luton (0582) 873167.

YAMAHA DX7 home use only, Ohm Tramp keyboard amp, both vgc, £975. ☎ High Wycombe (0494) 444441.

YAMAHA DX7 perfect condition, still boxed, guaranteed, £800. Dave ☎ York (0904) 34626.

YAMAHA DX7 sustain pedal, immaculate condition £850. Accessit stereo reverb and four-way power supply £85. ☎ (0324) 482348.

YAMAHA DX9 £550, only driven on Sundays, all the bits, Andrew ☎ Plymouth (0752) 362414.

YAMAHA DX9 with 740 sounds £469. Willing to p/x for DX7 or will buy DX7 outright. ☎ (06284) 74752.

YAMAHA DX9 vgc, plus stand, case, breath-controller, sustain pedal, leads, guides, voices, etc. £525 ono. ☎ 01-853 4675.

YAMAHA DX9 £500 ono, TEAC X10 £300. Clef Master Rhythm £60. Joe ☎ (0532) 775507.

YAMAHA DX21 brand new, boxed, unwanted gift £575 ono. Four-tier keyboard stand £75. ☎ Bournemouth (0202) 294817 evenings.

YAMAHA DX21 4 months old, still boxed, excellent condition, ideal first synth, only £525. ☎ (0628) 29513.

YAMAHA PF15 vgc, bedroom use only, a real

instrument £660. Liz ☎ Blackburn (0254) 774554 after 6pm. Forced sale.

YAMAHA PS20 portable keyboard, immaculate condition, £190. ☎ Doncaster (0302) 61672 evenings.

YAMAHA PSS5 keyboard, good condition, £350. Moog Prodigy, fat sound, £120 ono. ☎ Newcastle 091-284 3368.

YAMAHA PS6100 auto-play synth with stand, boxed as new, good FM sounds, giveaway at £749. ☎ (0222) 736339.

YAMAHA SK10 brass/strings/organ, vgc, £80. Paul ☎ Guildford 67882.

YAMAHA SK20 good condition, excellent sounds, £325 ono. Polymoog keyboard, £200. Tony ☎ Peterborough (0733) 64424.

WURLITZER PIANO £175. Crumar Stringman £85. Vox Continental, two manuals £150, Premier 5-drum kit £150. ☎ 01-902 9023.

Sampling

GREENGATE DS3 as new, under guarantee, enormous sound library with word processor card + lots of extras, £1100 ono. Pascal ☎ 01-241 0130.

SIMMONS Digital Sampler and EPROM Blower. New, guaranteed, with eraser and four EPROMs, £230. Andy ☎ 01-421 1735 after 5pm.

Drums

BOSS DRI10 mint, £90. Boss PC2 £25. Both £100. jon ☎ 01-734 4257/8 daytime, 01-603 4907 evenings.

BOSS DRI10 excellent condition with manual, £70. ☎ Wellingborough (0933) 227584 weekends.

BOSS DRI10 rhythm m/c, boxed, still on first set of batteries! £95. Martin ☎ 01-788 2416.

BOSS DRI10 mint, perfect, only 10 hours' use, boxed with full instructions. £95. jon ☎ 01-727 0327 day/eves.

BOSS DR55 drum m/c, excellent condition, still boxed with manuals, £39 ono. ☎ (0992) 460110.

CLEF BAND BOX programmable backing group complete with master rhythm, £135 ono. ☎ Urminger (04022) 26512.

KORG DDM110 brand new, impeccable, boxed, instructions, leads. £169. J Blair, 34 College Road, Clifton, Bristol, B58 3JJ.

KORG DDM110 plus adaptor, £125, or swap for SH101/Moog Prodigy/MC202 + £20, or other decent monosynths. lan ☎ 061-432 5705.

KORG DDM220 digital percussion, mint £115. The Kit drum synth, bargain £45. ☎ 091-266 3433.

KORG KPR77 stereo drum machine with adaptor, £150. David ☎ Newbury 40847 after 6pm.

KORG PSS50 Super Section digital drums with bass and backing chords, many voices, £175. Tony ☎ Doncaster (0302) 770420.

MAXWIN BLACK five-piece drum kit inc hi-hat, cymbal and stool, £285 ono. Tony, 16 Cranmore Road, Solihull, West Midlands.

MEB 512 digital drums, nine voices, individual and stereo outputs, £130. Andy ☎ Yeovil (0935) 76441 evenings.

ROLAND CR78 Compurhythm, vgc, £150 ono. ☎ West Yorkshire (0977) 82408.

ROLAND CR8000 programmable/preset, boxed, six outputs, home use only, quick sale required, hence £99. ☎ Romford 44404.

ROLAND TR606 DRUMATIX + case, £90 ono. Paul ☎ (0733) 234805 eves.

ROLAND TR606, mint condition, separate outputs, fitted, £110. Casio MT40 polyphonic portable keyboard £35. John ☎ 01-699 4979.

ROLAND TR606 mint, £100 ono. ☎ Sunderland (0783) 294788 anytime.

ROLAND TR606 excellent condition, several mods, carrying case, £85 ono. Gary ☎ (0705) 475945.

ROLAND TR606 inc power supply, case etc. £90 ono. Al ☎ (0742) 661317.

ROLAND TR808 programmable rhythm composer, good condition, boxed £200. Bruce ☎ Leeds (0532) 780954. Please leave ☎ number.

ROLAND TR909 MIDI, independent outputs, volume and pitch, too much to specify. £350 will

haggle. ☎ Wendover (Bucks) 625200.
SCI TOM £395, Akai 4000DB £70, Drumtraks £499, Yamaha DX9 £460, Equaliser £20, Yamaha DX7 £899. ☎ (06284) 74752.
SIMMONS SDS5 two bass, five toms, snare, plus hi-hat module, pad leads, stand, inc. £950 ono. ☎ (0642) 479164 or 478431.
SIMMONS SDS5 Hi-hat module and pedal £75. SDS5 cymbal £20. Both perfect. ☎ 01-444 2903.
SIMMONS SDS8 five drum programmable/preset kit. Never gidded. Only £135. Tell your drummer now! ☎ Romford 44404.
YAMAHA MR10 drum m/c, with twelve preset, adjustable rhy thms and five manual finger pads. £40. ☎ Woking 67384.
YAMAHA MR10 plus kick pedal, £45 ono. Soundmaster Stix, £60 ono. Home use only. ☎ (0706) 622097.
YAMAHA RX15 drum computer £300. Paul ☎ Glossop (04574) 2156, Greater Manchester area.
YAMAHA RX21 drum m/c, absolutely perfect condition, £200 ono. Mark ☎ (0322) 51092.

Paul ☎ Guildford 67882.
ACCESSIT two compressors, two gates, four-way power unit, £29 each (buy four-power unit free!) ☎ Ashted (03722) 75293.
AKAI 4000DS £50, Yamaha CS10 £60, Korg PSS50 £150, Boss Phaser Pedal £35. Tony ☎ Doncaster (0302) 770420 eves.
AKAI 4000DS II SOS stereo reel-to-reel £95. ☎ Epping 76672.
AUDIO TECHNICA ATM11 condenser mic, as new, £45. Pair Marantz condenser mics £15. ☎ (0272) 732232 or 620092.
CARLSBRO D900 digital delay, unused, rack-mounting, mains powered, £160. ☎ 031-664 7639.
COMMUNICATIONS ENGINEER offers 'free' work in evenings in studio, needs experience, makes good tea. Michael Davies 01-586 9851. 9-5.30.
DIGITAL DELAY (Kenmulti), stereo output, excellent effects. 19" rack, £130. ☎ Oxon (0491) 573980.
DOKORDER 8140 4-channel multitrack tape deck, echo, SOS etc. Excellent, £235. Swap Casio CZ101. ☎ 091-266 3433.
DYNAMIX 6.2 mixer, £125. Roland MC202 Microcomposer £110. The Kit drums, £50. All perfect condition. Kevin ☎ (0353) 87498.
FORGET PORTASTUDIOS - Tascam Professional 234 4-track + remote, £425. Promark MX3 8:4:2 mixer, £345. Yamaha RX15 £350. All immaculate. ☎ (0225) 336273.
FOSTEX B16 and remote £3000. Half-inch tapes. £15. ARP Odyssey offers, MC202 £95, ADC stereo graphic £85. ☎ (0602) 414892.
GREAT BRITISH SPRING reverb, £130. Accessit Equaliser £20. Andrew (Flat 5) ☎ 01-769 6917 (Streatham)
MAXIM DIGITAL DELAY vgc. £250 ono. Howard ☎ (0885) 88315 after 6pm.
PATCH PANELS GPO-type. 20-way, used, 80 sockets in 2U! £8. Belden 8-pair foil screened multicore £1.50/m. ☎ (0242) 35114 eves/weekends.
POWERTRAN SM6 Mixer, 3FX/6input channels, stereo, rack-mounted, £115 ono. ☎ Dover (0304) 212055.
REVERB/FX GBS reverb, £115; Boss DM2, £55; two CE2s, £45 each. Clive ☎ 01-230 4504 (work), 01-579 4518 (home)
REVOX A77 3 1/2" 2-track, built-in amps and speakers (suitcase model), excellent condition, £360. ☎ Milton Keynes (0908) 677038.
SWAP REVOX B77 Mill for electronic drum kit, home use only or digital reverb plus £200. Total value £400. ☎ 061-860 5464.
ROLAND RE201 Space Echo, mint, £225 ono. ☎ Sunderland (0783) 294788 anytime.
STUDIO WORK part or full time required by dedicated, hard-working, young male. Greater Manchester. Clive ☎ (0706) 65978.
TANNOY 12" MONITOR, gold, studio units, no cabinets, £175 pair. Quad 33/303 pre/power amp, £120. ☎ 01-670 8420.
TASCAM 32:2 half-track, recently serviced, vgc £380. ☎ (0923) 34114/53728.
TASCAM 38 excellent condition, inc 8 reels of used 1/2" Ampex 406 tape, £1400 ono. Michael ☎ (0533) 57490.
TEAC 144 Portastudio, vgc, £300. Paul ☎ Guildford 67882.
TEAC A3440, £500, RSD Studiomaster Mixer 8:4, £400. Both mint, open to offers, may split. ☎ Sunderland (0783) 294788.
TEAC A3440 4-track mint, slight logic problem on transport but perfectly usable, hence £425. John ☎ Sheffield (0742) 348063 eves.
VESTA FIRE MLM1 limiter module, £35 ono. Robert ☎ Welwyn GC (0707) 326704 eves.

(0993) 841586 (nr Oxford).
SELMER 100W PA, two 4x12" cabs, four channels £75. Dave ☎ (04024) 44352.
PEAVEY 400 SERIES bass rig 2x15" Black Widow cab, 300W, as new with covers, £400. ☎ Camberley (0276) 23903.
POWERTRAN SP200 stereo power amp, £50. ☎ Dover (0304) 212055.
ULTIMATE KEYBOARD speaker, incredible frequency response. 350W, 4-way system, cost £450. Sell for £175. ☎ (04862) 67933 for full details.

Misc

A80 + MIXER £27. DX7 £19, Mirage £20 per day. Yamaha R1000, D1500 DDL available. Midland area ☎ (0926) 612225.
ACE PATCH SWAPS Casio CZ or Korg Poly 800, one of yours for two of mine! ☎ Bristol 426215.
ARIA PRO2 Cardinal CS250 electric guitar, good condition, £170. E-Bow as new, £50. ☎ Durham 62499.
ATTENTION! CZ5000 owners, expand your synth's capabilities, over 100 new sounds on cassette for £2. James ☎ Oxford (08675) 78551.
BASS PEDALS Casio FK1, complete with f/case, both brand new, £150. ☎ Worthing (0903) 690043.
CASIO CZ Sound Book contains approx 150 sounds, £4.50. Cheque/PO to P Statter, 2 Radburn Cottages, Clayton-le-Woods, Chorley, Preston, PR6 7RA (also data exchange).
CLEF MASTER RHYTHM drum machine £35. Maplin 4-octave keyboard with gold contacts, resistors, £25. ☎ Lancaster (0524) 733103.
DX7 internal memory expander, 128 presets plus new MIDI functions, £120. Alain Aisenberg, 146 Rue du FBG, Poissoniere, 75010 Paris, France.
GRAMPIAN BRITISH SPRING vintage reverb, no 'boing', superb quality, reluctant sale. £60. ☎ Epping 76672.
KAWAI KS11XL 6-string electric guitar plus case, as new. ☎ (0634) 572381 after 6pm.
KAY 'LES PAUL' Guitar + B&M amp, £90 for pair. ☎ 01-570 4205.
MIDI DRUM PADS multi-pad, compact, economic, velocity sensing, more information? SAE to C West, 7 Brandon Cottages, Highfield Road, Salisbury, Wilts.
£100 PER WEEK hire: Yamaha DX7, RX15, Tascam 246, Tannoy Oxfords, Quad 405. Wayne ☎ Farnborough (0689) 52784 evenings.
ROLAND JP4 £275. Crumar Multiman S £250. WEM Copycat £40. Synonics Drums £25. Home use only. ☎ Dartford (0322) 28183.
ROLAND VOCODER PLUS, £450. Morley Flanger £45. Yamaha mini-PA £85. May negotiate. ☎ 01-572 2939.
SWAP KORG DDM110 digital drum machine (hardly used) for good brand CD player or £160. Mark ☎ (0253) 824493.
SWAP TEAC 3340 plus mixer and Renault 20TL car for Fostex A8 or £800. Phil ☎ (0634) 684644 after 7pm.
WESTONE THUNDER LA bass, with active tone controls and hard case, offers, or swap for Revox A77. ☎ (0702) 830382.
WEM COPYCAT Delay, £45. ☎ Romford (0708) 26641 evenings.
E&MM EDITOR'S CAR 1969 Jensen FF (four-wheel drive Interceptor), black coachwork completely restored to new condition, red Connolly leather interior, excellent mechanics, new factory alloy wheels, tyres, stainless steel exhaust and many other parts, authenticated 36,000 miles from new, 6.3-litre V8 engine, top speed 145mph, anti-skid braking, limited slip diff, no.129 of 190 built, a classic Ferrari killer for Ford Sierra money: £8250 or offers. Call Dan Goldstein on ☎ (0223) 323399.

SocSci UG PH, Sussex University, Brighton.
BASS PLAYER needed to complete a serious modern 3-piece band - The Glory Boys. Chris ☎ Bradford (0274) 735672.
CAN I HELP? Repairs, modifications, hi-tech hardware explanations by an experienced engineer/programmer. Richard ☎ 01-743 7321 (day only).
COMPETENT KEYBOARDIST, experienced reader, available for sessions, any other work, decent equipment, cheap rates! South East ☎ (06284) 74752.
KEYBOARD PLAYER required by drummer and bassist/guitarist. Dartford-based, own rehearsal room. Mike ☎ Farnborough, Kent (0689) 52048.
KEYBOARD/SINGER or both wanted, in Kidderminster, Kinver area by keyboard player. ☎ (0562) 850407 after 4pm weekdays.
KEYBOARD/SYNTH player wanted (18-25) for pop/soul/funk band with hit! material. ☎ 01-552 2951 anytime.
MUSICIAN SOUGHT for collaboration of New Age Music etc. Have sampler/keyboards, wish to meet broad-minded creative musicians. Quiller ☎ 01-299 1684.
PRO MUSICIAN/computer programmer: MIDI, MC programming, etc. Need help with small or large projects? ☎ (0253) 890185.
TO MY BENGAL TIGER: I'll sell the Fairlight, Matrix 12, everything. No more music! Just say you'll marry me. Love, Puppy.

Wanted

ACCESSIT REVERB, other reverb units considered, cash waiting, can collect, London or Leicester. ☎ (0533) 302402 daytime only.
ACORN MUSIC 500 also TMS versions of anything except classical. ☎ 01-446 4404 evenings/weekends.
CASIO CZ101 I can scrape together about £175. Andrew ☎ Stevenage (0438) 721642 after 6pm.
DX7 URGENTLY £800 cash! (legitimate buy) or p/x DX21 plus f/case, excellent condition plus £300 cash. Chris ☎ 01-675 7415.
E&MM 1981 March, July, Have March, April, June '83, swap/payment for yours. J. Scott, Box 4713, Cape Town, South Africa.
KRAFTWERK/ORGANISATION material wanted, anything considered, contact: A Siegt, 2 Spring Crescent, Widcombe, Bath, Avon BA2 4HZ. Also techno-pop.
GUINEA PIGS REQUIRED for new fully-engineered portable demo facility. Record at your convenience. Mike ☎ (04946) 2065.
MIDI RETROFIT specs for Hammond DPM48 drum machine. Help! John Moriarty, 22 Lakelands Close, Kilmacud, Blackrock, Dublin, Eire.
PG200 PROGRAMMER for Roland JX3P synth. Judy Low, 27 Chapel Street, Portsoy, AB4 2RL, Scotland. ☎ (0261) 7361 day, (02614) 3094 eves/weekends.
PLEASE HELP! Inventor needs synths, effects, anything. Broke, will refund post. 23 3rd Avenue, Penparcau, Aberystwyth SY23. ☎ 611505.
RARE RECORDS for sale. Numan, Kraftwerk, Ultravox, H League, Joy Division, Japan, lists available. Paul ☎ (0733) 234805 eves.
ROCKMAN headphone amp ☎ 091-266 3433.
ROLAND TR606 Clef Master Rhythm, or rough equivalent, must have programmable songs. Neil ☎ Hornchurch (04024) 54958.
SERVICE MANUALS, circuit diagrams for Vox Continental II and 300 organs, also spares and dividers (IC). ☎ (0202) 886727.
TASCAM 38 8-track tape m/c. also 16:4/2/16:8/2 mixer. Paul ☎ Glossop (04574) 2156 (Greater Manchester area).
TWO FIRSTMAN SEQUENCERS £50 each. Also 12:2 mixer, MM or Dynamix £150. I Brianwood Ave, Wythenshawe, Manchester M23 9AY.
TWO-TRACK reel-to-reel mastering machine, Revox A77, B77 etc (not Fostex). ☎ 01-552 2951.
YAMAHA D1500 digital delay, must be in excellent condition and in Greater London. Mike ☎ 01-449 7791 eves.
YAMAHA DX7 must be in good condition. ☎ 01-889 8095. ■

Sequencers

ROLAND CSQ600 digital sequencer, excellent condition, £95 ono. ☎ Southend (0702) 615307.
ROLAND MC202 perfect condition, boxed leads, instructions, dual-channel sequencing, only £100 ☎ (0635) 200295 eves.
ROLAND MSQ100 digital MIDI sequencer, boxed, mint condition, £285. ☎ Leeds (0532) 638965.
ROLAND TB303 Bassline, £65 or swap for Spectrum MIDI tackle or printer, whatever. Musicians sought by vocalist. Al ☎ 01-451 5787.
ROLAND TB303 Bassline, still boxed £60. Two-tier X-type keyboard stand, £15. ☎ Kendal (0539) 31412.

Computing

ACORN MUSIC 500 for BBC B, as new, boxed with manual, £125 ono. ☎ 01-485 1394.
BBC DISK DRIVE Teac slimline 40-track, 100K. £39. Disk interface system £39. Vincent ☎ Manchester 061-969 2710.
COMMODORE 64 £60. Tony ☎ 01-740 5752.
COMMODORE 64, drive, printer, JMS MIDI, £280. Apple look-alike, drive, LEMI MIDI, monitor, software, £550. ☎ (0239) 711032.
DIGITAL SEQUENCER project using Ekosynth P15 synth and 6502-based micro, £4.50. M Wheeler, Stradrom House, Graig Street, Pontypridd.
GREENGATE DS3C complete system, computer, 5-octave keyboard, monitor, disk drives, latest software. Adrian ☎ Farnborough (Kent) 54103.
JMS 12-TRACK Studio program for CBM 64 £25. Charlie ☎ 01-985 7799.
SIEL INTERFACE for CBM64/Spectrum, £50.
JMS 12-track Recording Studio disk for 64, £50 ono. ☎ Manchester 061-626 0780.
SPECTRUM music software, SIEL Live Sequencer and JMS Multitrack Composer programs (unused), £30 each. ☎ 021-440 1168.
WILL SWAP BBC Micro with books and lots of software, as new, for Casio CZ101. ☎ Reading (0734) 477715.
UMI 1B 16-track polyphonic MIDI sequencer for BBC Micro and hundreds of DX7 sounds on disk, £295. ☎ Epping 76672.
YAMAHA CX5M large keyboard, 2 ROMs, boxed, £300 or swap for CZ1000. John, 4 Alma House, Ashton Road, Lancaster, Lancs.
YAMAHA CX5M large keyboard + composer software, two months old, £280 ono. ☎ Bas 282109.

Recording

ACCESSIT EQUALISER vgc, with PSU, £30.

Amps

CARLSBRO 90W keyboard combo £185. Roland 201 Space Echo £185. Multi Moog Synth £145. ☎ Woking 68283.
FENDER SIDEKICK 30 reverb amp, immaculate £100. Chris ☎ 01-995 3381 after 7pm.
SCOTT PA SPEAKERS 150W, 10 months old, excellent condition, £150 the pair. ☎ Carterton

Personnel

ATARI 520ST PROGRAMMER seeks software house (MIDI interfacing etc). Write: A Morris.

E&MM FREE CLASSIFIED ORDER FORM

Fill in the form to a maximum of 18 words (one in each box), and send it to: *E&MM Free Ads, Music Maker Publications, Alexander House, 1 Milton Road, Cambridge CB4 1UY*. Please print CLEARLY in BLOCK CAPITALS. The ad must reach us on or before **Friday, March 7** for inclusion in E&MM April '86 - late arrivals will be printed in the next available issue.

Please include this ad in thesection.

1	2	3
4	5	6
7	8	9
10	11	12
13	14	15
16	17	18

Classified

Rates for 1986: Lineage 35p per word (min 12 words); Box No. 80p extra. Display: £15.00 per single cm. column. All prices are subject to VAT at 15% All lineage advertisements must be pre-paid. Closing date: 6 weeks preceding cover date. Advertisements are accepted subject to the terms and conditions printed on the advertisement rate card (available on request).

SAVE IT!

AT City Music

Save your hard earned cash at City Music! Phone our Hot Line now for your FREE FACT FILE of instruments and City Music SAVE IT prices on YAMAHA & ROLAND!



SPECIAL SAVE IT PACKAGE YAMAHA CX-5 MUSIC COMPUTER

YK-01 Keyboard + YRM-102 ROM RRP £570
CITY PRICE £299
QX-7 RRP £499 £325
TX-7 RRP £699 £499
Best prices also on DX-7/DX-21/DX-5/RX-11 RX-15/RX-21 and all Hi-Tech gear!
NEW DX-100 SYNTH NOW IN STOCK!



ROLAND TR707 Drums RRP £550

CITY PRICE £425 ROLAND JUNO 106 and JX-8P

SUPERDEAL PRICES
SH101 £199; TR-707/727 £449;
PG200 £129; MSQ-100 £525;
MSQ-700 £769 etc etc

HOTLINES

LONDON AREA:
01-863 1841
DEVON/CORNWALL:
0752 673166
CHANNEL ISLES:
0534 78901

FL-TF1

Flight case for TF1 modules complete for power 1.2 or 3 TF1 modules. An attractive price for expanders

DX-7

512 internal presets + MIDI upgrade
SPX-2 = very easy to install

EMM

MIDI Memory Extension for synths and expanders with MIDI dump function. EMM can store 1100 DX-7 sounds. TX7, TF1 cassette interface. We study other MIDI products

POLYTRAK

29 Rue de Versoix
01210 Ferney (France)
Ph = 50594223-50207383

The London Rock Shop

01-267 7851/5381/1771

ENSONIQ 'MIRAGE' MULTI-SAMPLING KEYBOARD

MIRAGE keyboard with two library disks and MASOS (Mirage Advanced Sampling Operating System) Velocity-sensitive keyboard, built-in sequencer, 3 1/2" disk drive for sample and sequence storage, multi-sampling across keyboard. Simply the best value sampler around with a great voice library. Now in stock at New, Lower Price..... £1295
Mirage Pre-sampled Disk Library Nos. 1-16 - each..... £15.00
No.1 & 2 included with keyboard on purchase
No.1 Acoustic piano, Slap bass, Wooden flutes, Synth bass, Drums
No. 2 Bells, Clavinet, Anasynths, Brass, Guitar synth and ELP Rock'n'Roll!
No. 3 Ac. bass, Trombone, Cello, Sax, Tpt, Violin
No. 4 Acoustic & Electronic drum kits, Orch. Perc
No. 5 Acoustic Piano, Marimba, Electric Piano
No. 6 Rock & Solo guitar, Clavinet & Classic Gtr.
No. 7 Chor 1, 2 & 3, Bassoon, Oboe, Bas Clarinet
No. 8 Brass Fall-off, Gliss, Organ & El Piano 2
No. 9 Breathly bass, Clavimba, Tympello, Perc. bottle,

Chainsawed bass, Plucked brass!
No. 10 Tabla, Bayan drums, Sitar, Tamboura, harp, harp gliss, Bass harmonica & harmonical
MASTER FORMATTER DISK: (enables you to format your own blank disks)..... NOW £15.00
London Rock Shop pre-formatted blank disks: £4.95 each (+50p post & packing)
£45.00 box of 10 (inc. FREE plastic library box (value £2.95) (+£1.50 P&P)
Memorex blank 3 1/2" disks: £35.00 (box of 10) (+£1.50 P&P)
MASOS (vers. 1.2) Advanced sampling system: essential for earlier buyers..... NOW £40.00
ANTI-ALIASING FILTER for professional sampling: fits in rear expansion socket..... NOW £112.00
SEQUENCER MEMORY EXPANSION CARTRIDGE: expands sequencer memory to 1357 events..... NOW £62.00
APPLE IIE VISUAL EDITING SYSTEM (requires i/face card and includes MASOS) on demo..... NOW £230.00
PASSPORT INTERFACE CARD for Apple Iie with drum/clock inputsocket & tape sync..... NOW £149.95

Ring for details of new library discs Nos 10-16



Sound advice AND a better price!

SAMPLER TAPES 2 high quality chrome cassette tapes specially formatted for sampling. The two tapes contain nearly 200 sounds - snares, bass drums, bass sounds, strings, orchestral, pianos, effects, choirs etc.

Only £20 the pair including P&P from Metronome Studios, 5 Wimpole Street, Chatteris, Cambs. Tel: 03543 3949

FOR TOP QUALITY real time cassette copying any quantity - quick

service and keenest prices. Tel: C.S. Copy Service 0904 642761.

STOLEN TASCAM 244 Portastudio No.780128. Information on this or on whereabouts of Ross Middleton to Bath 331300.

Loudspeaker Cabinet Fittings

From Adam Hall Supplies:
● Coverings & frets
● Flight case parts
● Celestion power speakers
● Rean jacks & fittings
● P&N stands

Send 30p PO/cheque for illustrated catalogue

ADAM HALL SUPPLIES LTD
Unit M,
Carlton Court,
Grainger Road,
Southend-on-Sea
Essex



TO ALL DS3 AND DX1 OWNERS

Turn your sampler into a synthesiser!!
Frequency Modulation/Envelope/ Harmonic Drawing/Farctal Synthesis - A suite of software from The Music Suite. £25.50 inc P&P. Cheques/POs to: The Music Suite, Glanrafon House, Kentrich, Newcastle Emlyn, Dyfed.

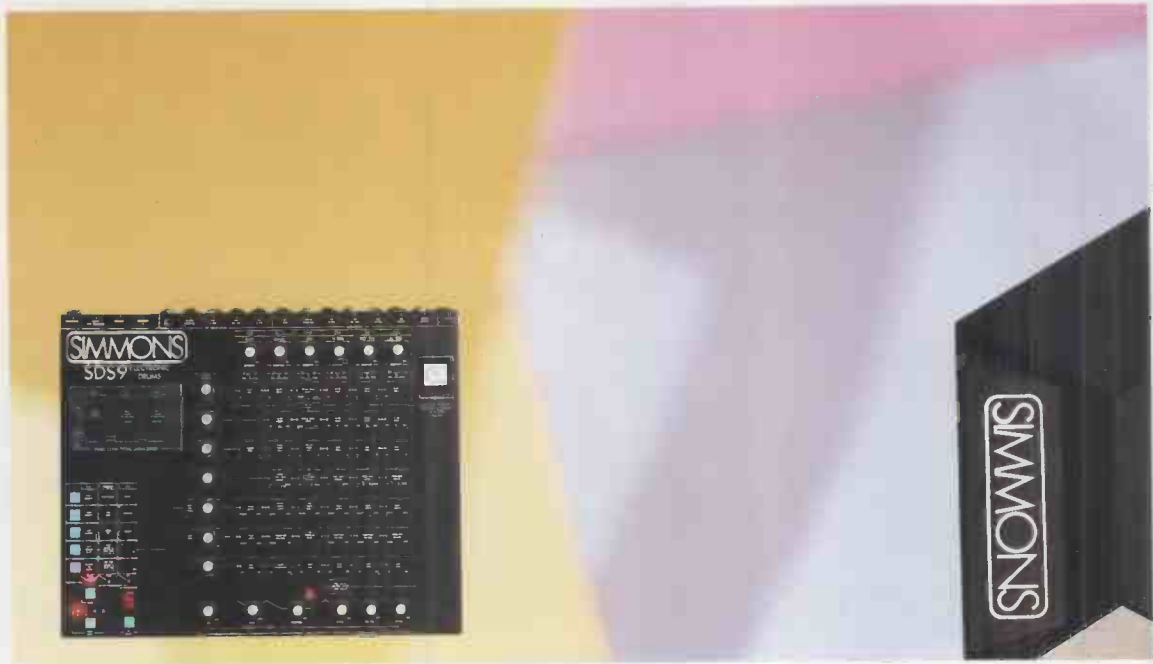
PROGRAMMER WANTED IMMEDIATELY

Must be familiar with PPG, Prophet 2000, DX7, Oberheim, Synths and Sequencers. Steady Studio Work
Apply in writing to:
Katherine Ivison, CMO Management,
9 Disraeli Road, Putney,
London SW15 2DR

ADVERTISERS INDEX

ABC Music	11
AHB	22
Argents	15
Arthur Lord Keyboards	71
Bonnors	81
Carlsbro Sound Centre	1
Chase Musicians	6-7
Don Larking Audio Sales	89
Dougies Music	40
Ensoniq UK	58-59
Flash St Electromusic	40
Future Music	26-27-28-29-30-31
Gigsounds	5
Harmon UK	60-61
Honky Tonk Music	9
Jones & Crossland	67
Joreth Music	85
J.S.G. Music	39
London Rock Shop	33/104
M.P.C. Electronics	100-101
M.T.R.	76
Music Maker Special Offer	25
Oxford Synthesizer Co	80
Project Electronic Music	77
Quark	40
Rock City Music	36-37
Rose Morris & Co	Bound Insert
Sequential	IFC
Simmons Electronics	IBC
Skyslip Music	91
Soho Soundhouse	85
Sound Technology	62
Sounds	90
Sound Sales	77
Sola Sound	91
Sycos Systems	12-13
Tantek	85
Telecomms	35
The Keyboard Shop	69
Time Machine	71
Toa Electronics	OBC
W.E.M.	64-65
XRI Systems	91
Yamaha U.I.	86-87

s d s 9



IF ELECTRONIC DRUMS ARE TO SUPERSEDE TRADITIONAL PERCUSSION THEY MUST SATISFY TWO IMPORTANT CONDITIONS.

FIRSTLY, THE ELECTRONIC INSTRUMENT MUST BE CAPABLE OF PLAYING, RESPONDING AND SOUNDING LIKE ITS ACOUSTIC COUNTERPART AND SECONDLY, MUST BE MORE CREATIVE, MORE INNOVATIVE AND MORE CHALLENGING THROUGH THE APPLICATION OF MODERN TECHNOLOGY.

WITH THE "EMULATION BRIEF" CLEARLY IN MIND, SIMMONS' DESIGNERS HAVE GIVEN THE SDS 9 A NEW GENERATION OF DRUM PADS, MONITORED BY A MICROPROCESSOR TO EXPAND AND TAILOR PRECISE DYNAMIC CHARACTERISTICS. A CONVENTIONAL SNARE DRUM HAS BEEN SAMPLED THREE TIMES FOR ACCURATE CROSS STICK AND RIM-SHOTS AND THE SDS 9'S COMPUTER HAS BEEN PROGRAMMED TO GENERATE AN EXACT RECONSTRUCTION OF A PERFECTLY RECORDED ACOUSTIC BASS DRUM. THE "SECOND SKIN" FACILITY ALLOWS BOTH SINGLE AND DOUBLE HEADED TOM-TOMS TO BE SYNTHESIZED.

IN PURSUIT OF THE "INNOVATION BRIEF", ALL SIX DRUM VOICES ARE FULLY PROGRAMMABLE AND CAN BE SELECTED AS REQUIRED BY A FOOTSWITCH. A PROGRAMMABLE DELAY AND FULLY ASSIGNABLE MIDI INTERFACE ARE ON-BOARD BRINGING THE PITCHED SOUNDS OF KEYBOARD SYNTHESIZERS AND THE FACILITIES OF MIDI SEQUENCERS AND EFFECTS INTO THE SCOPE OF THE DRUMMER.

EMULATION—INNOVATION. A CREATIVE STEP FORWARD WITH RESPECT FOR THE PAST.

SIMMONS

SIMMONS ELECTRONICS LTD., ALBAN PARK, HATFIELD ROAD, ST. ALBANS, HERTS. AL4 0JH
TELEPHONE: (0727) 36191 (5 LINES) TELEX: 291326 HEXDRM G.

Tell me more

NAME

ADDRESS

UNLEASH THE POTENTIAL OF ELECTRONIC INSTRUMENTS



Another breakthrough from Toa. If you expect the best in audio for your electronic music the new 380-SE three way speaker demands your attention.

Packing 360 watts of continuous program power capacity it meets the vigorous requirements of electronic instruments such as analogue and digital keyboard synthesizers, drum machines and guitar synths.

As with the new 480-SE it has extended frequency response to assure high quality reproduction of all music.

For full technical details please write to or telephone Toa Electronics Limited.



TOA

Toa Electronics Limited, Tallon Road, Hutton Industrial Estate
Brentwood, Essex CM13 1TG Tel: 0277 233882
Toa Electronics Europe GmbH, Eiffestrasse 74 D-2000 Hamburg 26
West Germany Tel: (040) 2506091
Toa Electronics Inc, 480 Carlton Court, South San Francisco CA. 94080
U.S.A. Tel: (415) 588-2538
Toa Electronics Inc, 10712, 181 Street, Edmonton, Alberta
Canada T53 1K8

FIFTY YEARS OF PROFESSIONAL SOUND

A.B.C. MUSIC, ADDLESTONE, ESHER, KINGSTON; A.1 MUSIC, MANCHESTER; ALLBANG & STRUMMIT, LONDON W.C.2; AUDIO SERVICES, STOCKPORT; BOOTLEG MUSIC, EPSOM; BIRD SOUNDS, BELFAST; CARLSBORO SOUND SERVICES, NOTTINGHAM, MANSFIELD, SHEFFIELD, NORWICH; CASH GUITARS, BOURNEMOUTH; COVENTRY SOUND SERVICES, COVENTRY; COOKES BAND INSTRUMENTS, NORWICH; CURLY MUSIC, LIVERPOOL; DOUGIES, NORTHWICH; E.S.S., BARNET; F.D. & H. MUSIC, LONDON W.C.2; FREEDMANS, LEYTONSTONE; GIG SOUNDS, STREATHAM, CATFORD; H.H.B. HIRE & SALES, LONDON N.W.10; J.S.G., BINGLEY; JONES & CROSSLAND, BIRMINGHAM; MONKEY BUSINESS, ROMFORD, SOUTHEND; MUSIC CRAFT, EDGWARE ROAD; MUSIC STOP, WOLVERHAMPTON; MUSICAL EXCHANGES, BIRMINGHAM; MUZO'S, BIRMINGHAM; PETER BONNER, EASTBOURNE; PROJECT ELECTRONIC MUSIC, HOUNSLOW; ROCK CITY, NEWCASTLE; ROSE MORRIS, LONDON W.C.2; SESSION MUSIC, TOOTING; SOUTHERN MUSIC, BRIGHTON; STUDIO 34, BRISTOL; TURNKEY SHOP, LONDON W.C.2

MAR 1986

PLAYKAB

SPRING 1986

FEATURING KORG AND VOX AND MUCH MORE ■ VOLUME 2

REVIEW-REVIEW

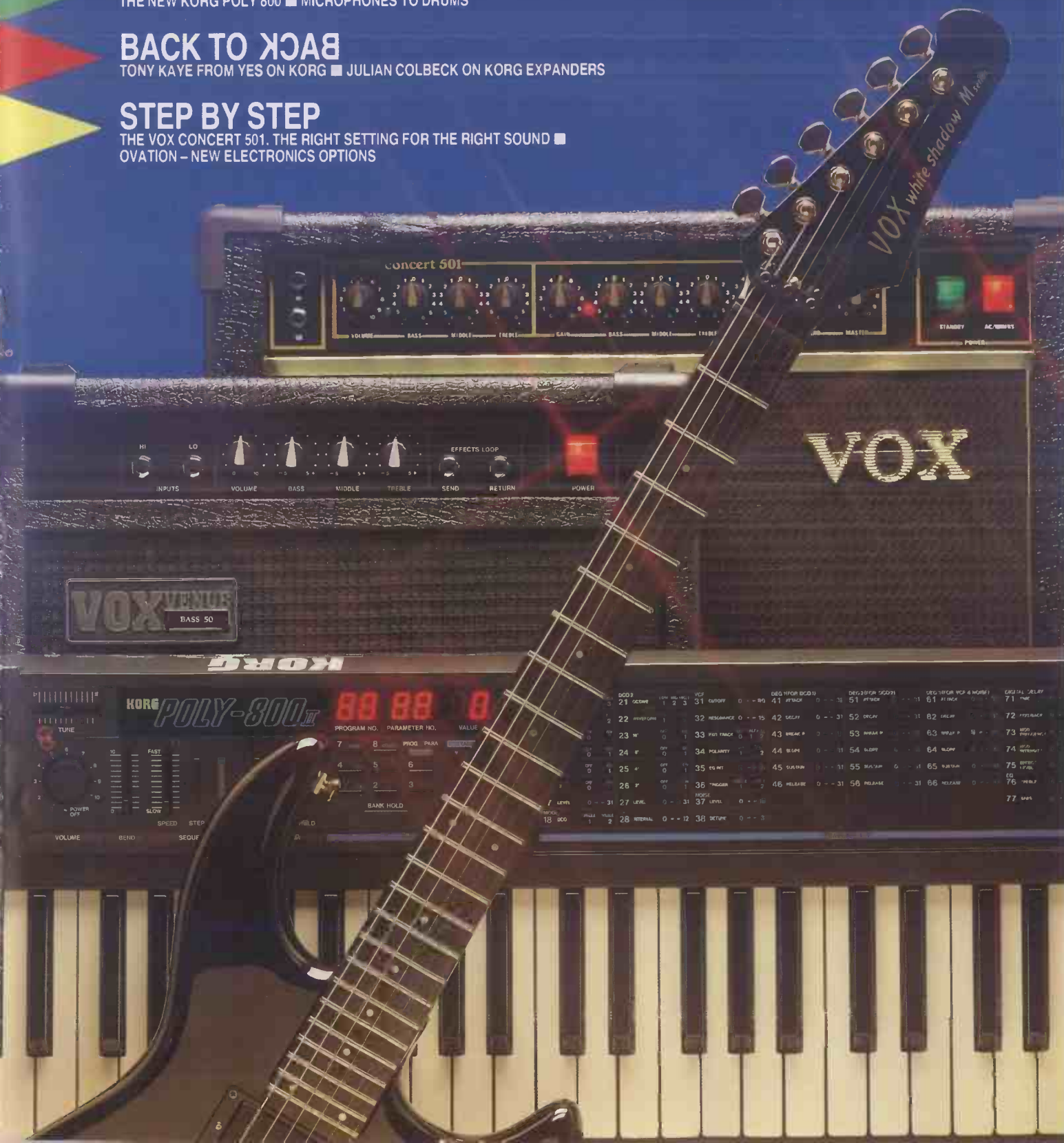
THE NEW KORG POLY 800 ■ MICROPHONES TO DRUMS

BACK TO KORG

TONY KAYE FROM YES ON KORG ■ JULIAN COLBECK ON KORG EXPANDERS

STEP BY STEP

THE VOX CONCERT 501. THE RIGHT SETTING FOR THE RIGHT SOUND ■ OVATION - NEW ELECTRONICS OPTIONS



PARAMETER NO.	VALUE	PARAMETER NO.	VALUE	PARAMETER NO.	VALUE	PARAMETER NO.	VALUE
21	OCTAVE	1	2	32	RESONANCE	0	-15
22	AMPLITUDE	1	3	33	FIN. TRACK	0	1
23	W	0	1	34	POLARITY	1	3
24	F	0	1	35	EG RET	1	3
25	F	0	1	36	TRIGGERS	1	3
26	F	0	1	37	LEVEL	0	-31
27	LEVEL	0	-31	38	DETUNE	0	-3
28	INTERNAL	0	-12				

REVIEW

IMPROVING PERFECTION THE NEW KORG POLY 800

THE FIRST POLY 800 – LAUNCHED IN 1984

It was launched in 1984 and acclaimed as 'a truly superb little instrument' by Music UK, 'a breakthrough, excellent value for money' by International Musician, "an extremely impressive piece of equipment" Electronics and Music Maker. Since then the Korg Poly 800 has established itself as the biggest selling Poly synth in the world. With eight voices, 64 programmable memories, a built-in sequencer and midi, the Poly 800 has been bought by professionals and amateurs alike not just because of its outstanding features for the money, but also because of its convenience, weighing only 4.3 kilograms. Professionals take the Poly 800 off the stage and back to their hotel room. As Geoff Downes of Asia said "for what it costs it's fantastic, not really much less versatile than a lot more expensive synths".

1986: THE POLY 800 II

So, how could Korg improve on the success of the Poly 800? 1986 sees the introduction of the new Poly 800. In many respects the same as the original, the same compact size and weight, but with just a few improved features.

A BUILT-IN DIGITAL DELAY. The Korg DW8000 was the world's first synth to have a built-in programmable digital delay and the new Poly 800 is the world's second. This



The new Korg Poly 800

means that instead of a simple chorus control, all types of delay effects, including flanging, phasing, slap echo and straight echo can be produced. Each programmed sound can have a different delay effect. This gives a whole new versatility to programming sounds on the instrument.

A LARGER BUILT-IN SEQUENCER. The Poly 800 has a built-in polyphonic sequencer. This is a very useful extra feature, not normally found on synthesizers and it has been the inspiration of some of the hits of the last two years. It is easy to use and sequences can be stored on to tape and re-loaded as required. The sequencer on the new Poly 800 has an expanded note capacity of 1024 notes.

A BUILT-IN PROGRAMMABLE EQUALISER. Most amplifiers have bass and

treble controls to modify your keyboard's output. But often each programmed sound requires a different treatment. The programmable bass and treble controls on the new Poly 800 allow each program to have its own equalisation.

A MODIFIED ENVELOPE CURVE. The Poly 800 has three digital envelope generators, each featuring Attack, Decay, Breakpoint, Slope, Sustain and Release. The new Poly 800 envelopes have an exponential curve making a far more realistic and natural sound. This makes a marked improvement to all the sounds of the instrument.

The new Poly 800 is set to continue as the world's most successful Poly synth and as Chuck Leavell of the Rolling Stones said, "One of the most versatile musical instruments I've played in years".

MICROPHONES – THE UNSUNG HEROES

Mic's are an integral part of almost all musicians' equipment, and choosing the right mic for your needs can be difficult. So here are a few pointers:-

There are many types of microphones on the market including dynamic moving coil, condenser, electret condenser, and ribbon mic's, all with different pro's and cons depending on usage. The main advantages of dynamic microphones such as the Vantage range are that they are less expensive and more robust than the other types mentioned, which is an important consideration if a musician is constantly gigging/touring etc. Also they do not need any external power source (unlike the

condenser mic)

Within each broad type of microphone there are then four variables to consider:-

1. Polar Response/Directivity

Mic's are seldom sensitive to sounds arriving from all angles, and are categorised as i) Omnidirectional, where the mic response is equal from all around, ii) Bi-directional, where the mic will pick up sounds from in front and behind, but not at the sides, and iii) Uni-directional, which will only pick up sound from the front. The Unidirectional mic is most often favoured because it will discriminate against any unwanted noise from the rear.



Continued on page 5. Vantage Profile Series and Road Series Microphones

REVIEW!

LINKO DRUMS

New to the UK drum market is the name Linko, introducing two drum kits which represent excellent value for money.

Each is a five-piece kit consisting of two hanging tom-toms, floor tom-tom, bass drum, and snare, and is complete with stands and chain driven pedals. Linko drums are available in standard or deeper shell kits and in a choice of colours. What more could an aspiring drummer need for his first kit!

All Linko shells are 9-ply in construction, and all are fitted with American Remo heads, a great asset to any drum kit. The snare drum is of chrome-steel, producing a good crisp sound.

The bass drum incorporates sturdy bass drum spurs which disappear within the drum

when not in use, and the chain driven bass drum pedal has been designed for smooth, fast beating.

These kits produce a great sound, and with a price of around £299 for the complete package, if you're looking for a well made kit at a budget price, these are the drums for you.



Linko Kit, Model 506

SPECIFICATIONS

Model No. 506, 5½" snare, 12 x 8, 13 x 9, 22 x 14, 16 x 16

Model No. 551, 6½" snare, 12 x 10, 13 x 11, 22 x 14, 16 x 16

TAKAMINE JAZZ GUITARS

The Takamine Company takes its name from the Takamine Mountains of Central Japan, where there exists a centuries-old tradition of fine craftsmanship in wood working, which is evident in all Takamine guitars.

The first thing people notice about the Takamine Jazz guitars is their incredible beauty and striking colours. But underneath this dazzling appearance lies a commitment to uncompromised acoustic sound quality. The body of the guitars is of flamed maple in blue, ebony or red, is hard, durable and superbly finished, with the slightly arched back and table of a traditional jazz guitar. Also available in natural spruce top with rosewood back and sides (EF 391 only). The necks are of maple with a rosewood fingerboard.

The Takamine EF 391 model has Palathetic pick-ups at the bridge, and also a well-shielded, low noise FET pre-amp, which retains the natural guitar sound, bright and jazzy. For an alternative

more bassy overall sound, the EF 590 model (with slightly shallower body) has a magnetic two-bar pick-up mounted at the end of the neck in place of the last two frets. Each have equalisation controls of treble, middle, bass and gain. Both are beautifully made and are ideal for any jazz influenced player.

The key to Takamine's superiority in acoustic/electric guitars has been the incorporation of careful design, quality materials, and masterful construction into a fine hand-crafted instrument that projects the warm natural sound of wood. Many professional musicians have been quick to catch onto the success of these impressive guitars, and the long list of Takamine users includes names such as Ry Cooder, Glen Frey, John Williams, Kevin Peek, David Lindley, Steve Lukather, Gary Moore, Earl Klugh, Nancy Wilson, Jackson Browne, James Taylor and many more.



Takamine EF 391 Jazz Guitars

JUPITER SAXOPHONES

During the last couple of years there has been a tremendous increase of interest in and use of the saxophone in current day rock and pop music. Unlike many other instruments, the saxophone can be picked up and learnt at almost any age, and it looks good on stage. But probably the main reason for their increasing popularity are the range of sounds that can be produced, from bright and raunchy through to a haunting soulful sound so often featured in today's music. Whatever the reason, the sax, always popular with jazz musicians, now has increasing presence in contemporary bands.

Jupiter is an up- and-coming name in the brass and woodwind world, with a reputation of producing good quality reliable instruments at reasonable prices. The current range of Jupiter instruments include an Eb Alto and Bb Tenor Sax, all developed with the help of professional musicians. Both instruments now include a high F # key to maximise the register attainable. The keywork is power forged brass, designed to operate positively and easily (especially those operated by your weaker little finger).

The overall finish is a luxurious, long lasting deep gold lacquer which is very attractive, and both instruments are easy blowing, producing rich and mellow sounds.

Also in the Jupiter range are trumpets, trombones, cornets, flutes, and many more band instruments.



THE VOX CONCERT 501

STEP B

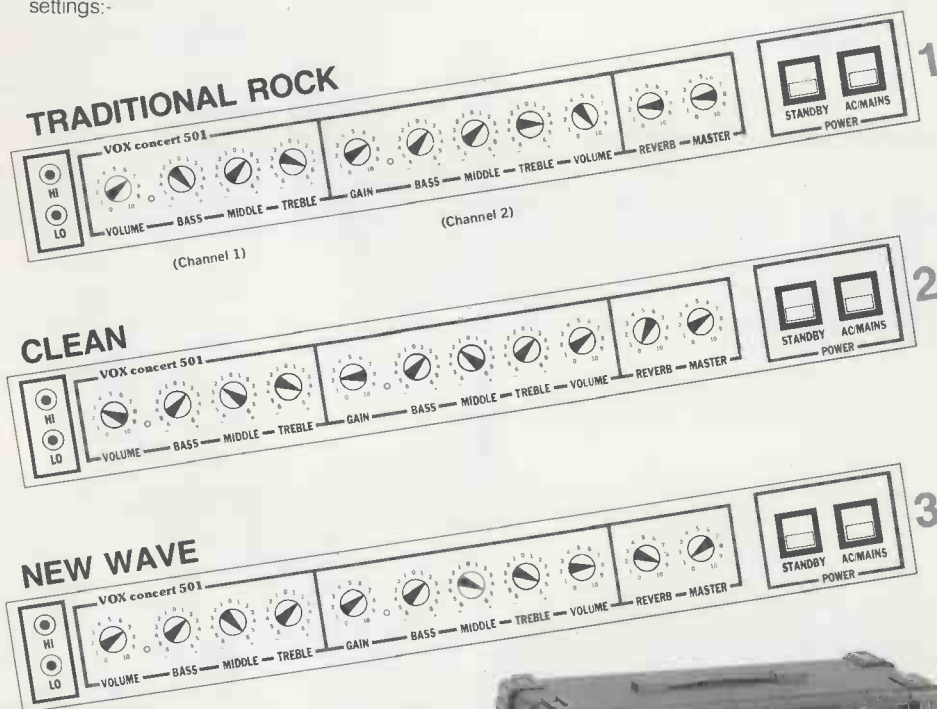
THE RIGHT SETTING FOR THE RIGHT SOUND

The Vox 501 Valve Combo is a very versatile twin channel amplifier which can produce a whole spectrum of sounds through its two channels, each with independent equalisation (the second channel having the addition of a gain control). By use of a footswitch you can swap between any two preset sounds while playing. LED indicators show which channel is in use.

These are some of our favourite 501 settings:-

NOTE:

Use the reverb control to add depth to the sound. All these sounds, and many others, can be produced at either high or low volume without affecting the quality of the sound and level of distortion, with use of the master volume control. So the amp can be used in a practice situation (where the volume may need to be relatively low) as well as for performance.



1. TRADITIONAL ROCK

Channel 1:

Gives a classic valve amp sound. Ideal for rhythm guitar.

Channel 2:

Extra volume for breaking into a solo, with harder distortion. Very raunchy sound. (Set gain control for amount of distortion required.)

2. CLEAN

Channel 1:

Produces a clean bright sound.

Channel 2:

A similar sound, but with extra volume for solos.



Vox Concert 501

3. NEW WAVE

Channel 1:

Gives a cutting overdriven sound.

Channel 2:

Echoey sound with lots of reverb. Very reminiscent of the New Wave era.

Ovation - NEW ELECTRONICS OPTIONS

In the late '60's, when acoustic guitars began to compete with the projection of electric instruments Ovation rose to the challenge and developed the 'six crystal in bridge' system that allowed musicians the creative option of an acoustic sound in an electric world.

Development has continued over the years, and the latest Ovation acoustic electric guitars have state-of-the-art electronics. The Ovation OP-24 three band active equaliser represents the latest advance in acoustic-electric amplification, and can be found on all Legend, Custom Legend, and Legend Elite models.

The FET-3 preamp featured on Ovation's Custom Balladeer models shares many of the listed benefits of the OP-24 preamp but is a passive system. So the three bands of bass, mid, and treble can be filtered (but not boosted) as well, like the OP-24) to give precise tonal

THE NEW OVATION OPERATIONAL AND ACTIVE EQUALISATION SYSTEM

Features	Benefits
<ul style="list-style-type: none"> 6 chips containing 24 transistors each, as opposed to just one or two transistors in traditional preamp systems. 	<ul style="list-style-type: none"> Quieter, more reliable than traditional systems.
<ul style="list-style-type: none"> 3 band active equalization with a range of ± 12 decibels from center (flat) response. 	<ul style="list-style-type: none"> An extraordinary previously unavailable response.
<ul style="list-style-type: none"> Careful selection of the centering frequencies in each of the three band-widths, chosen to complement the frequency spectrum of the Ovation guitar. 	<ul style="list-style-type: none"> A much wider band on-board control from out-board filters.
<ul style="list-style-type: none"> Built-in battery check with LED indicator light. 	<ul style="list-style-type: none"> The confidence of knowing before you begin that the LED also assists in dark rooms or at night.
<ul style="list-style-type: none"> Carefully positioned volume control. 	<ul style="list-style-type: none"> Ease of adjustment with right hand during playing. No need to hold down your other hand for adjustment.
<ul style="list-style-type: none"> Graphic equalization 	<ul style="list-style-type: none"> Gives you a vibrant response you are used to.
<ul style="list-style-type: none"> Center "click" on each of the three sliders. 	<ul style="list-style-type: none"> Allows you to look at the sliders.

BY STEP



adjustments. Obviously, the active electronics offer greater tonal variety, but the passive FET-3 system is definitely a new advance for Ovation who have led the field from the start in amplified acoustic guitars.



AMPLIFIER (OP-24) TEM

efficient and more additional preamp systems.

any range of tonal variety not possible from acoustic guitars.

range of possibilities from a 3 graphic E.Q. than is available five or seven band E.Q. systems.

ce that your battery is functioning begin your performance. The in locating your volume setting on stage.

ment with the little finger of the performance allows you to chord with left hand while making

visual picture of the tonal e creating

feel" zero or flat without



LET YOUR FEET DO THE PLAYING

The Korg Midi Pedalboard MPK 130 is a 13 note pedal keyboard that can be used to play

any midi equipped keyboard. Its octave range is switchable (by foot) during performance and any midi channel can be selected. The MPK can be used with a synthesizer, an electric piano or any home keyboard which has midi. Many musicians have learnt to play on an organ and the Korg MPK allows you to extend your playing.

MICROPHONES - THE UNSUNG HEROES

CONTINUED FROM PAGE 2

2. Impedance

In order to preserve the strength and overall frequency range of the signal as it passes from the mic into your equipment, it is important to select a mic with an impedance that will match the input impedance of the amp or mixer that is being used. High impedance mic's give high levels of output signal, but low impedance mic's are often chosen because they are less susceptible to background hum when used with long cable lengths. Dual impedance mic's are also available and can be switched to high or low impedance and therefore used for all purposes.

3. Sensitivity

Sensitivity is a measure of how readily voltage results from a sound wave input (at a given sound pressure level). In general terms, the greater the mic sensitivity, the better the

signal to noise ratio, therefore resulting in less background hiss.

4. Frequency Response

The frequency response of a mic indicates the range of frequencies which the mic can handle, and a frequency response curve shows the response in dB across that range. A smooth response over a range of frequencies is desirable in the majority of cases. The greater the range of response, the more likely you are to capture and transmit the total sound.

Vantage have three ranges of microphones at prices ranging from £12 to £49, complete with leads, with varying specifications as below. All are *dynamic* mic's, so will stand up to rough stage treatment, and all are *unidirectional*. Within this range there are mics for a wide range of musicians.

Model No.	Impedance	Frequency Response	Sensitivity
Profile Series			
V-1500	Low	80-13000Hz	at 1000Hz -78dB
V-1800	High	80-13000Hz	-63dB
V-2400	Low	80-13000Hz	-78dB
V-2500	High	60-14000Hz	-63dB
V-2600	Dual	60-14000Hz	-63dB
Performer Series with detachable shielded cable			
VMD-120	High	60-14000Hz	-56dB
VMD-150	Dual	60-14000Hz	-56dB (-74dB)
VMD-250	Dual	50-16000Hz	-55dB (-74dB)
Road Series with detachable shielded cable			
RS-65	Low	50-16000Hz	-74dB
RS-85	Low	40-16000Hz	-71dB
RS-75	Low	40-16000Hz	-74dB
(instrument mic)			

TONY KAYE ON KORG

Yes are back with Trevor Horn producing the second album since the band reformed with Tony Kaye and Trevor Rabin. Playback caught up with them in Trevor Horn's studio in London and spoke to Tony Kaye about the album and keyboards. This is what he said:-

"I started using the Korg DW8000 in Hollywood in August when we took over a house there for rehearsals. I think it was the first one to reach the USA. Of course I'd been using the DW6000 for a while and was very impressed with that, but the 8000 is fantastic.

"I've used Korg personally on the road for a long time and, after the last album, we were on the road for a year and a half. I used a huge rig with Oberheims, some DX's and a couple of Emulators and more – and of course it's all good once it's all programmed up – if it's programmed well it's a great sound but it is very difficult to change quickly.

"At the moment I'm using the Korgs on their own – when I first got the DW8000 I midi'd it to a couple of DX's when we were rehearsing just to get some different sounds, but actually I found that it wasn't really necessary because there's some great digital sounds on the 8000 anyway – it has its own characteristic sounds which, in my opinion, are very good.

"When Trevor and I were doing the demos after rehearsals in Los Angeles that's how we started. We midi'd the 6000 and 8000 together and we did everything for the album on the Korgs. I got used to the instruments and they're very very easy to program. They're really – what do they say – user friendly, musician friendly.

"Actually for most people the original sounds on the 8000 are so good it's just a matter of taste on how you change them. Of course the built-in digital delay is pretty extensive

"This kind of quality equipment wasn't really available a year ago and at that time all you could use to produce these sounds was a load of DX's midi'd together or you could use Fairlights, or the Synclavier all in the pursuit of different sounds

"I get more of a kick out of using the DW8000 as opposed to using the really expensive set-ups. When you get to the Synclavier level, I certainly don't know how to program it quickly – I don't think that there are that many people who do.

"For example, when we're doing back tracks, things are not finalised by any means and I've found that using the 8000 and 6000



together I can change a sound very quickly. Say we put a track down – even for a guide. I can in minutes change sounds, find different combinations of sound and change it myself between takes. I can't do that with the other systems – so for me it's ideal because I can do it myself very very quickly.

"We wanted to do something different from the old Yes, and with myself coming back into the band, and Trevor Rabin joining, we wanted to sound like Yes, but to get away from the old Yes material, and this album is an extension of

that. The writing has been a very joint venture – everyone has participated. On the last album we took a lot of Trevor Rabin's songs and adapted them – he's a very good song writer. In fact the whole band is using Korg because everyone has their own set up at home for writing

"I'm glad they're bringing out rack mount modules because my old set up was a pain in the neck to carry around. I'm banking on using a system with EX8000's on the road next year."

STOP PRESS... STOP PRESS... STOP PRESS
THE KORG DW8000 AWARDED KEYBOARD OF THE YEAR BY MELODY MAKER

BACK



JULIAN COLBECK ON KORG 'EXPANDERS'

It's taken time, but I think it's fair to say that MIDI has finally sunken into the consciousness of, and become part of everyday life for, most reasonably adept keyboard-orientated musicians

MIDI's opening scenario was one of feverish excitement and bitter frustration as people desperately tried to fly before they (and more importantly, the manufacturers) could walk. Everyone knew that MIDI was going to vastly enhance the quality of our lives, but, actually grilled as to what precisely one could accomplish via this innocent acronym, faces began to blank and feet shuffled

As soon as inter-manufactural MIDI discrepancies were sorted out, and it was safe to assume that you could play any MIDI-based Korg synth but could hear both the Korg and a MIDI-linked synth of any make, it doesn't take an Einstein to figure out that some pretty unnecessary duplication of instrument hardware was going on: Namely the keyboard itself

Whatever your set-up, the fact remains that you only have one pair of hands – and can then only play, at maximum, two keyboards at the same time.



The Korg EX-800 Expander

Ultimately the beauty of expanders lies in their practicality – physically and financially. To be fair you are unlikely to be able to accomplish any more with a bunch of Korg EX-800s than you could with a bunch of Poly-800s; it's their size, shape, and price that open doors.

Let's explore the possibilities more fully.

ON STAGE

To perform at your best on stage you need to be unfettered by worries about equipment. Into this category of potential impediments come amplification and the ability to hear what you're playing, positioning of equipment so that you can play what you want, when you want, and can both see and can be seen; and finally the feel and response of your instrument. Expanders help considerably in all these areas

The prime reason here is one of size. Using one or more expanders instead of full-blown instruments there is no need to be surrounded by banks of keyboards – taking up space and interrupting lines of vision/guzzling cash in terms of high-powered fancy stands. Korg Expander(s) can be racked neatly to one side, their sounds tapped and/or layered with others merely by changing MIDI channel numbers on your master, controlling keyboard.

Most of us have a favourite keyboard, ie. one that we're used to in terms of feel, depth, whatever. Using one, suitable keyboard on which to play, and hooking up to expanders so alleviates the need, physically to change instruments

The Korg EX-8000 Expander



IN THE STUDIO

The two golden rules of session playing are, Be quick – Be versatile. By the second I don't mean that you need to be able to play ragtime, jazz, AOR, classical, and 'modern' all with equal aplomb, but that you need to have at your fingertips – alternatives, different sounds, different textures. Most working players find that one, main instrument plus a bag-full of expanders is the most cost-effective, labour-saving method of remaining in employment.

The instrument that you're most happy to play on can so remain permanently set up, linked to expanders (also permanently set up), and you can then quickly and easily experiment with combinations or solo contributions from a number of instruments without having to heave in last-resort back-ups from the car.

AT HOME

The above comments apply equally well to the home user of course, but expanders are especially welcome due to their reduced size and cost compared to their keyboard-ed counterparts.

The arrival of low-cost, powerful MIDI sequencers, like Korg's SQD-1 has further helped musicians with reducing recording costs (even for the humblest demo) since parts can be tried out – even mastered – at home. The same applies to sounds. But for a sequencer such as the SQD-1 to function at its best, you'll need to hook up a number of sound sources – Synthesizers? Yes, but expanders ideally. Especially when a sequencer is going to be

doing the 'playing', umpteen different keyboards are an absurd waste of money.

FOR NON-MUSICIANS

Well, not exactly, let's say non-players. The steady growth of the computer musician has, and will continue to be one of the most important developments to guide music technology for years to come.

The interest in using personal computers to record and edit musical data is vast. However since much of the currently available musical software relies upon data being input from the computer keyboard, as opposed to the musical keyboard, the latter has become an often unnecessary item.

What is needed is simply a library of raw material for producing sounds. An expander in other words. Via a MIDI Computer interface (of which there are countless) music software and expander-type hardware opens the door to many a 'musician' in the best sense of the word, whose fingers may be as nimble and dextrous as their brain.

WHAT IS ON OFFER FROM KORG

Korg's price-shattering Poly-800 needs little introduction from me. Equipped with plenty of powerful sounds that totally belie its price and size, the Poly-800 remains a strong contender in the first time buyer market, some two years after its release.

The EX-800 was released at the end of 1984. Identical in terms of programming prowess and double-oscillator layering capabilities, the EX-800's attack though still analog sounds make it an ideal foil to digital synths of all persuasion. This first Korg Expander has 8 voices, 64 program memory and a built-in 256-step polyphonic sequencer. Receiving any of the 16 MIDI channels, with options for receiving program change, pitch bend, modulation and volume

over MIDI, you can buy two or three EX-800s for the sort of money you'd expect to pay for many a pukka, keyboard-ed synth nowadays.

The EX-8000 is a more sophisticated beast though. Korg's latest expander – it has 16 digital waveforms which provide both crisp digital and warm analog type sounds. The keyboard equivalent is of course the DW8000, Korg's intriguing new poly-synth that comes blessed with a number of Digital Delay parameters which can be part of the make-up of your programs. This unique capability is featured on the EX-8000 too. Since the EX-8000 can also be rack-mounted, the inclusion of a DDL is all the more advantageous.

As well as a plethora of switchable MIDI data like volume, pitch bend, modulation and program change, the EX-8000 will respond to keyboard dynamics from a so-blessed MIDI-linked keyboard. It even boasts a key window function allowing split keyboard set-ups.

One presumes, notwithstanding the current computer invasion into musical territories, that instruments with keyboards will remain a necessity for some while to come. However no other type of musical instrument straddles the two worlds of computers and good ole fashion plug-in-and-playing better than expanders.

The fact that Korg's pair of 'men for all seasons' come inexpensive too is just the icing on the cake.

ART OF NOISE

ART OF VOICE



Anne Dudley of the Art of Noise

the human voice, it's your own built in synthesizer and it's one sound that you never tire of. This Korg Digital Voice Processor is impressive. I used the first Korg Vocoder a long time ago in the days when Herbie Hancock was using a lot of Vocoder sounds. They haven't really been that fashionable for 4 or 5 years now, mainly because no-one has developed the idea. No-one has taken it a stage further – until now. The new Korg explores other avenues such as adding the harmonizer. Anyone who hasn't got a harmonizer would be well advised to get one of these for that part of it alone. I've used it this week on a vibes type sound to get harmonies.

In terms of how good the instrument is purely from a vocalist view, I couldn't say because I look at vocal sounds from an instrumentalist's point of view. I sometimes look at words more for the sound of the word than for its meaning – you can repeat one word over and over but give it an interesting pitch or rhythm. I've done some soundtracks for adverts recently and the voice processor would have been useful then.

There's more to it than I've had time to discover yet but the design and layout is good. It turns keyboard players into vocalists and you don't have to be a good vocalist to produce some great new sounds."

Take the concept of a vocoder, apply 16 bit digital technology and add midi and you have a great product. Add a pitch shifter, a 5 note programmable harmoniser, 8 internal vocal type waveforms and 64 programs and you have the unique new Korg Digital Voice Processor, the DVP-1.

We took this state of the art unit to the Art of Noises' Anne Dudley to ask for her views on this revolutionary Korg instrument.

"I like it very much. I've always been a great believer in the power of



The New Korg DVP-1 Digital Voice Processor

COMPETITION – COMPETITION

WIN A VOX 50W AMP OR A KORG TUNER

We're giving away a new Vox Venue 50W amp and three runner-up prizes of Korg DT-1 Tuners. All you have to do is answer the following questions and send your answers back to us.

- How many times* does the word "Korg" appear in this edition of Playback?

- How many times* does the word "Vox" appear in this edition of Playback?

- What musical instruments do you own?

- Most interesting article in Playback?

 - Most respected famous musicians?

- Name _____
Address _____

Send to: Playback Competition, Rose Morris & Co Ltd, 32-34 Gordon House Road, London NW5 1NE

* excluding appearances in photographs.

MORE INFORMATION

If you'd like more information on any of the Rose-Morris products, please tick the relevant boxes and return to Rose-Morris.

- | | | | |
|-----------|--------------------------|-----------|--------------------------|
| Korg | <input type="checkbox"/> | Guyatone | <input type="checkbox"/> |
| Vox | <input type="checkbox"/> | Vader | <input type="checkbox"/> |
| Ovation | <input type="checkbox"/> | Linko | <input type="checkbox"/> |
| Takamine | <input type="checkbox"/> | Jupiter | <input type="checkbox"/> |
| Di Marzio | <input type="checkbox"/> | Vantage | <input type="checkbox"/> |
| Clarion | <input type="checkbox"/> | Lee Oskar | <input type="checkbox"/> |