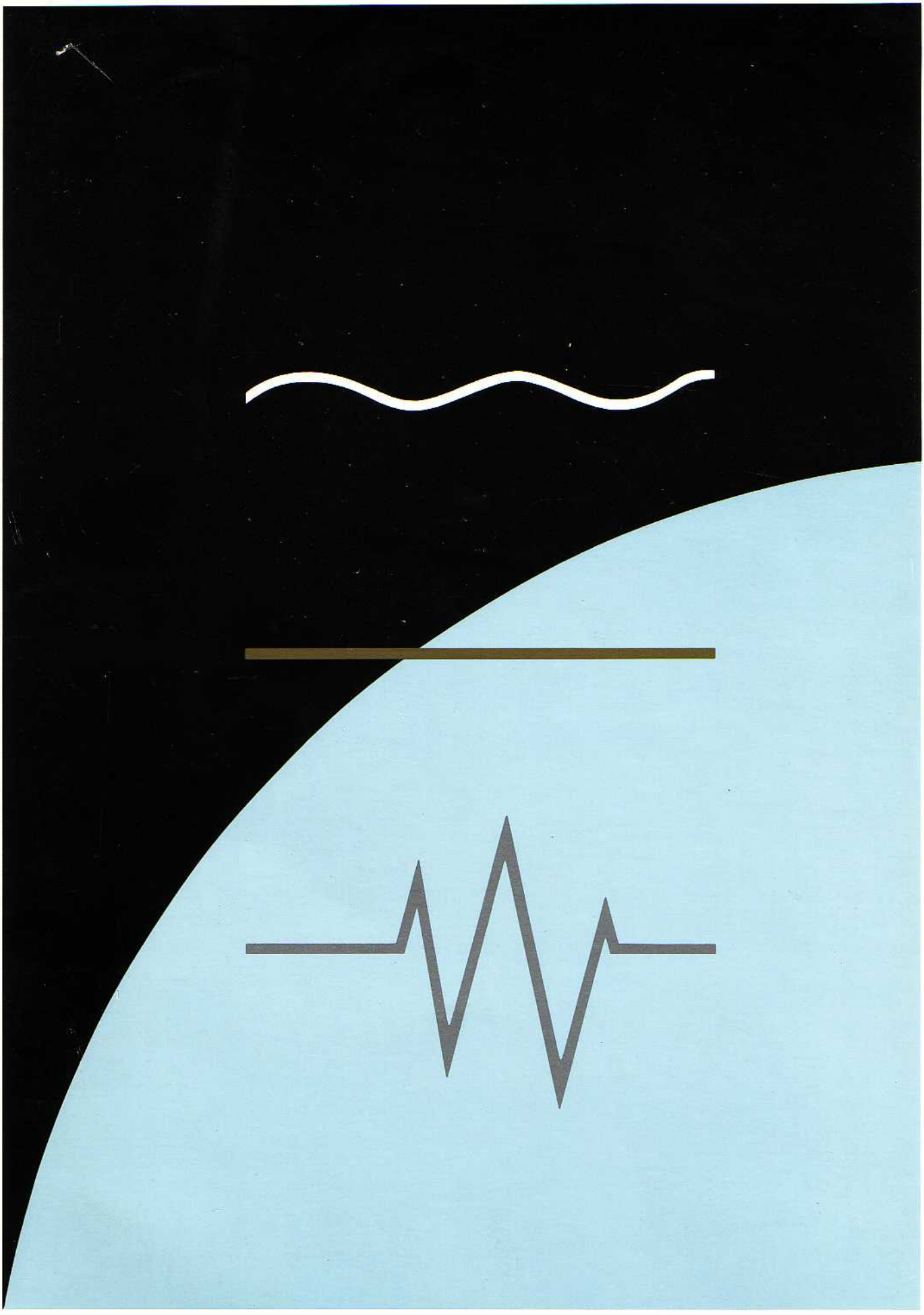
SERIES III



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A NEW WAY OF WORKING

The Fairlight Series III sets a new standard in music and sound production. A compact, integrated system which offers sound quality and functionality leaving you free to draw on creative rather than technical skills. It can be used in virtually all aspects of modern audio, including production of music and sound effects, editing of sound, dialogue and foley, and synchronisation of all of these with film, audio and video.

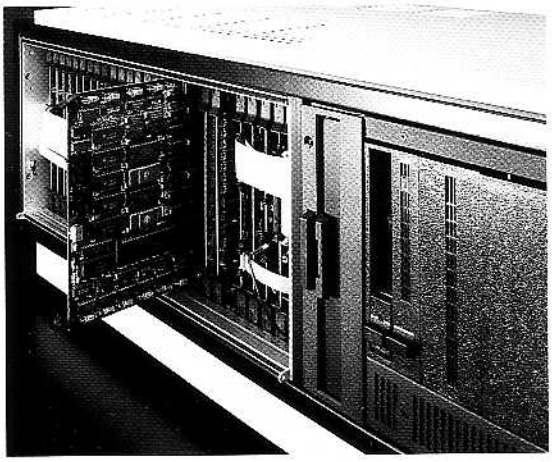
Combining multi-channel "sampling" and synthesis capabilities with powerful SMPTE-based sequencing systems, the Series III stands alone. It is also well suited to serve as the intelligent control centre for any customised MIDI system you may require.

Once you've completed your composition and arrangement, you may choose to use the Series III's superb digital quality audio as a direct first generation master. Sixteen channels are provided as standard, expandable up to 80.* Each channel can play a different voice if desired.

For many applications it is possible to use the Series III as your total production system. Or, if you wish, you may simply synchronise the system with any other multitrack or video recording format, whether tape or disk based.

*Expansion racks available during 1987.

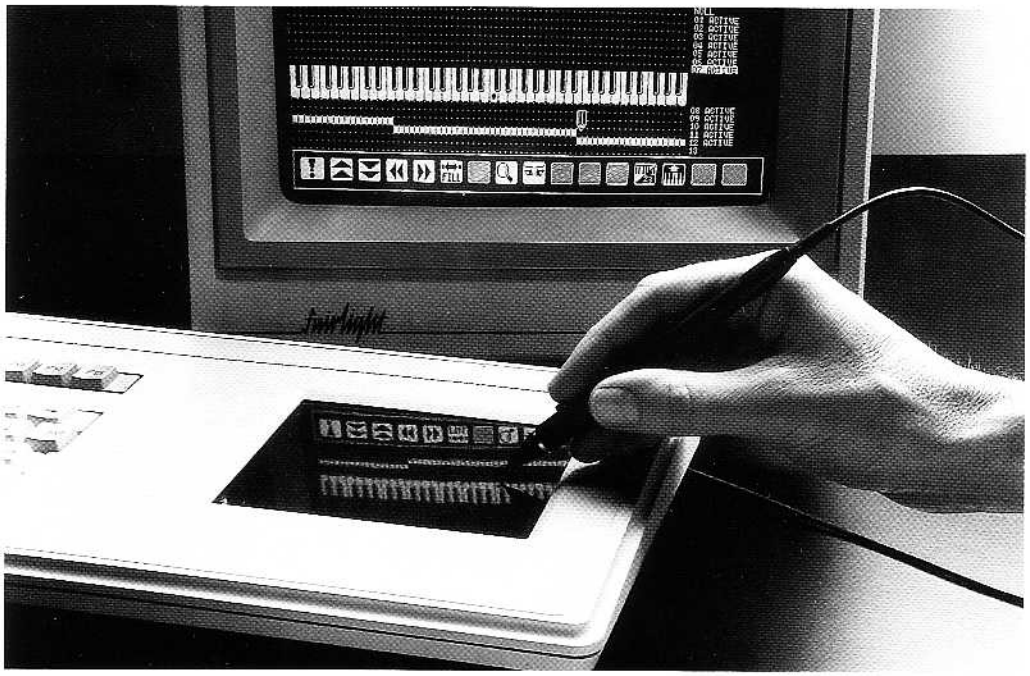
POWER, SPEED AND QUALITY

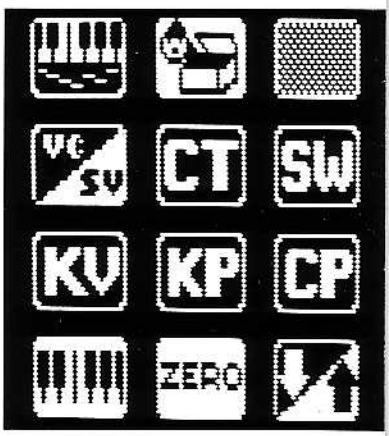


Every effort has been made to assure the highest quality digital audio available on the market today. The Series III uses the latest generation of processor and memory technology to provide an extremely powerful system in a portable package. In the 16 voice system, 12 micro-processors are orchestrated together to provide sophisticated performance capabilities.

Two independent card cages and power supplies effectively separate the audio output section from potential degradation by the digital processing.

SIMPLE AND FRIENDLY





Fundamental to Series III's philosophy is the goal of simplifying the creative process as much as possible without sacrificing flexibility, or stifling productivity. To achieve this an interactive graphics display and "drawing pad" allow commands to be quickly selected, with minimal need for typing.

The main functions of the system are logically organised into a hierarchy of "display pages", designed to provide as much relevant information as possible for the task at hand.

Menu driven software displays a choice of functions identified by self-explanatory screen icons (simple graphic symbols). The graphics pen is used to draw or alter sound waveforms, special envelopes, and function curves. Musical notes displayed on the monitor can also be edited with the graphics pen.

▲ **Menu selections are made from the screen icons using the graphics pen and interactive pad.**

SAMPLING

A "window" allows you to view the contents of your current sound library from any other page of the system.

Since Fairlight demonstrated the first sampling instrument in the late 1970s technology has come a long way. Now, with 14 megabytes of waveform RAM (Random Access Memory) you can sample over 2.5 minutes of sound at 44.1kHz. Stereo sampling is also a standard feature of the system. The Series III offers instant access to and manipulation of sound effects, acoustic instruments, synthesised sounds, dialogue or music.

Using disk recording* Series III allows lengthy program material to be recorded and played back. For example, 700 megabytes (requires optional disk drives) can provide about 2 hours of sound storage.

The system's sampling/recording quality is extraordinary. Sound is stored in 16 bit linear format with a sample rate of up to 100kHz. The higher sample rates capture ultrasonic harmonics often present but unheard in many acoustic sounds. These harmonics become audible when the sounds are played back at lower sample rates.

On playback, Series III offers by far the industry's highest sample rate extending out to 180kHz. This provides excellent high frequency headroom enabling sampled sounds to be played back at pitches well in excess of the original.

To eliminate "aliasing" (digital noises) when playing back sounds lower than the original pitch, the Series III provides a proprietary, dynamically controlled tracking filter on each channel. This combines with a custom, low order fixed filter minimising distortion at high frequencies.

*Due mid 1987

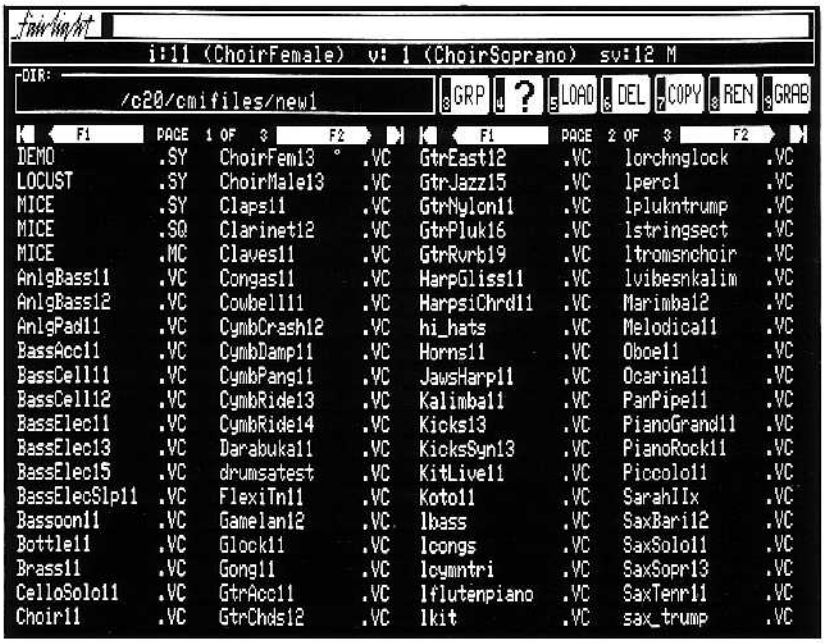
A LIBRARY OF SOUNDS

An extensive library of high-fidelity sounds is standard with the Series III. It includes all the major sections of the orchestra such as strings, woodwinds, brass and percussion, as well as specialised musical sounds, synthetic aural textures, choirs, and sound effects, many in stereo.

For complex acoustic sounds, such as the grand piano, a number of samples are taken to provide a fully realistic balance across the keyboard.

Composite voices are also provided in the library which contain samples of a number of different instruments.

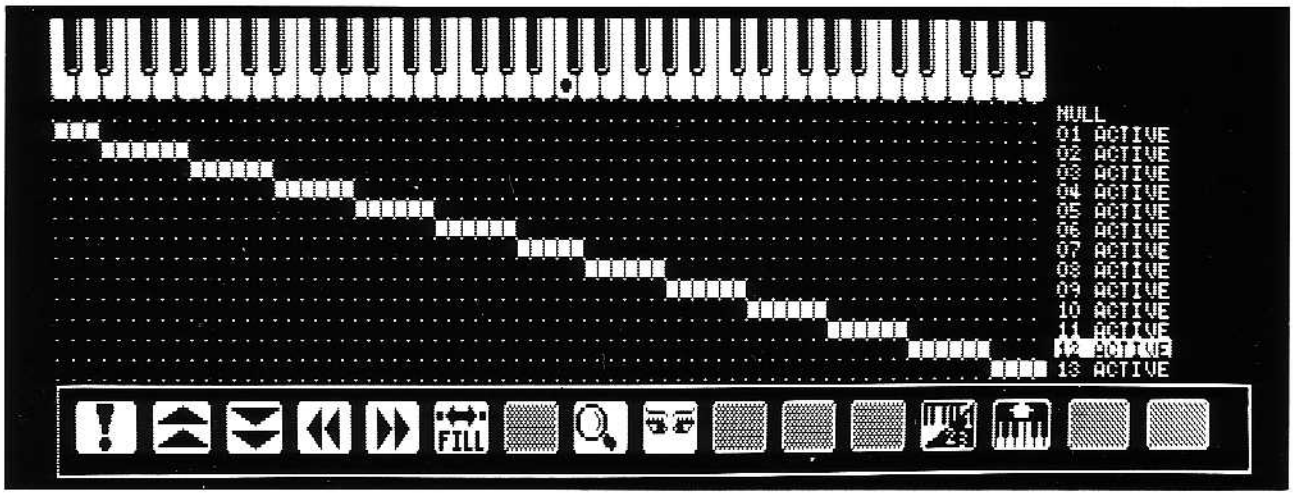
The easy-to-use sampling facility also enables you to quickly build up your own collection of custom-made sounds to complement the Fairlight library.

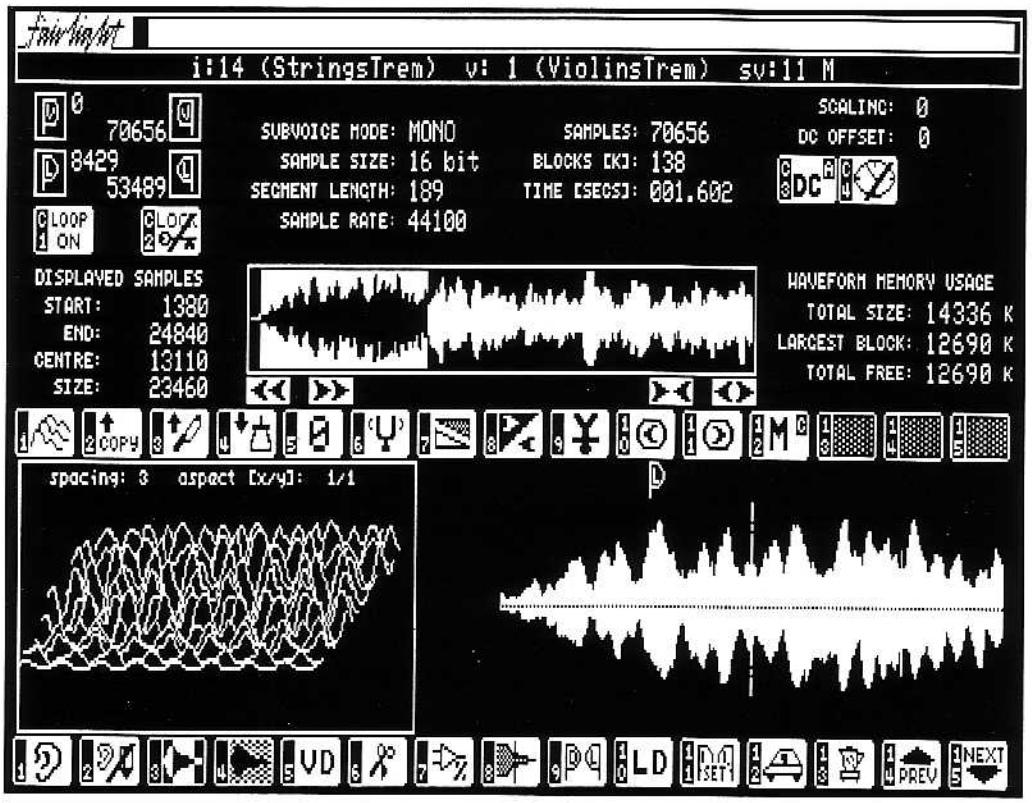


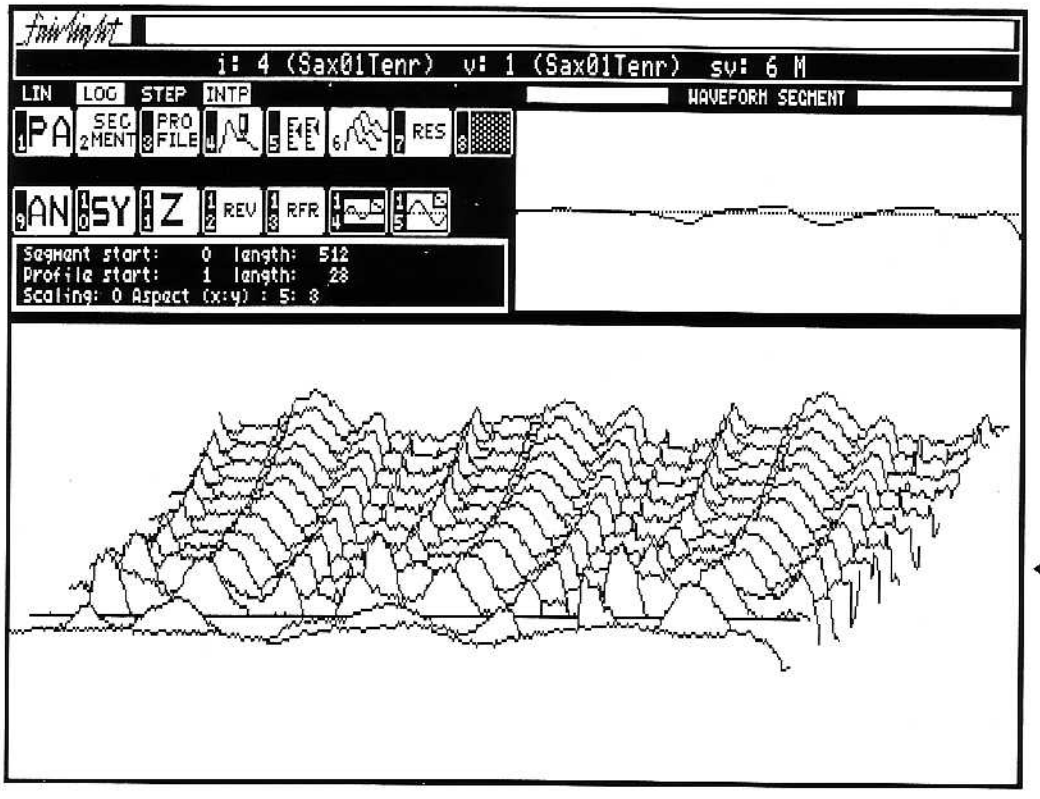
THE SOUND FACTORY

Series III is capable of sophisticated waveform manipulation allowing you to mould existing sounds into new and exciting variations, whether used alone or combined in numerous ways with other sounds. Sound waveforms and envelopes can be drawn, if desired, allowing detailed customising of the sound itself as well as the way it can be played. The manipulation facility used in conjunction with Series III's full bandwidth analysis and re-synthesis system, provides a sound factory of unlimited potential.

Through its independent voice channels, 16 different voices can be played simultaneously, or a single voice can be played with 16 note polyphony. Each voice can have up to 63 subvoices – a separate sample or sound for almost every key on the keyboard. Subvoices can be assigned to any key or group of keys to produce natural sounding instrument configurations. Unique solo performances are possible using "sound layering" which provides a dynamic composite of blended sounds.







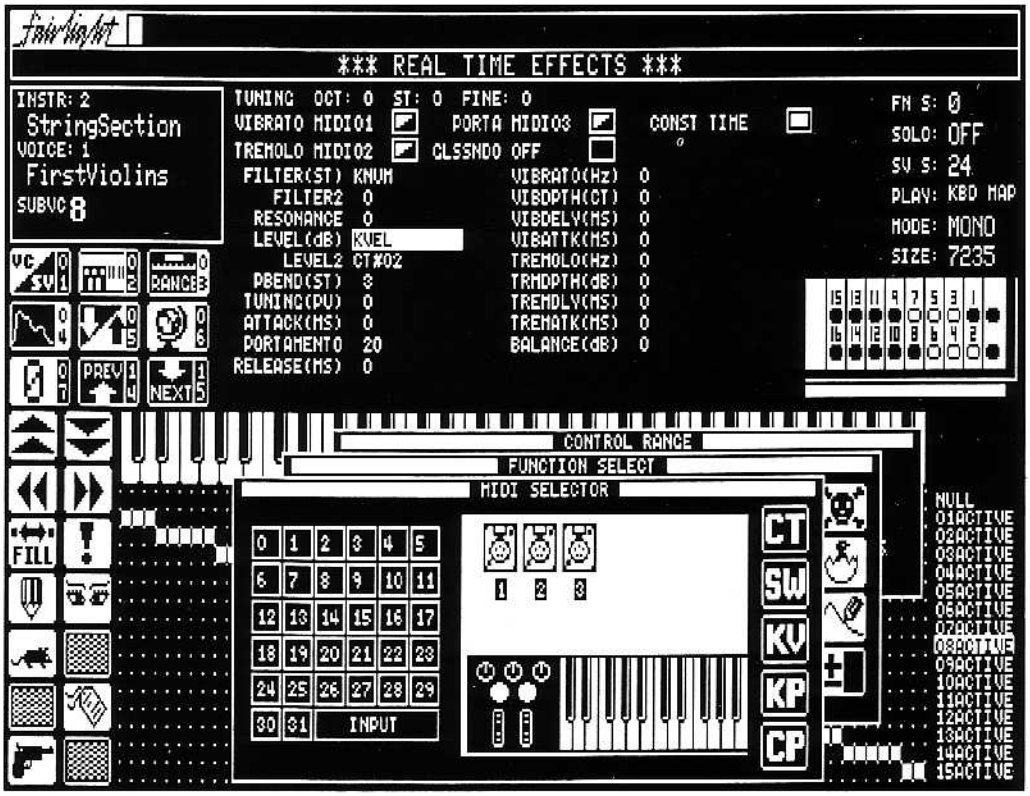
▲ Some of the facilities available to manipulate waveform. Here the Waveform Edit Page displays a cross sectional envelope of a string sample.

◀ Another way to view sample sound waveform, this time in 3-D.

◀◀ A graphic display representing allocation of subvoices – here, 13 different subvoices are split up over one keyboard.

Sampling and arranging sounds is one thing, being able to play them with sensitive musical expression is another. As with any other instrument, much of the feel comes down to the skills or interpretation of the player, but the Series III is unique in its ability to respond with the expression you might expect from an acoustic instrument.

Each voice and subvoice has its own "effects patch bay" where various parameters can be used to enhance performance.

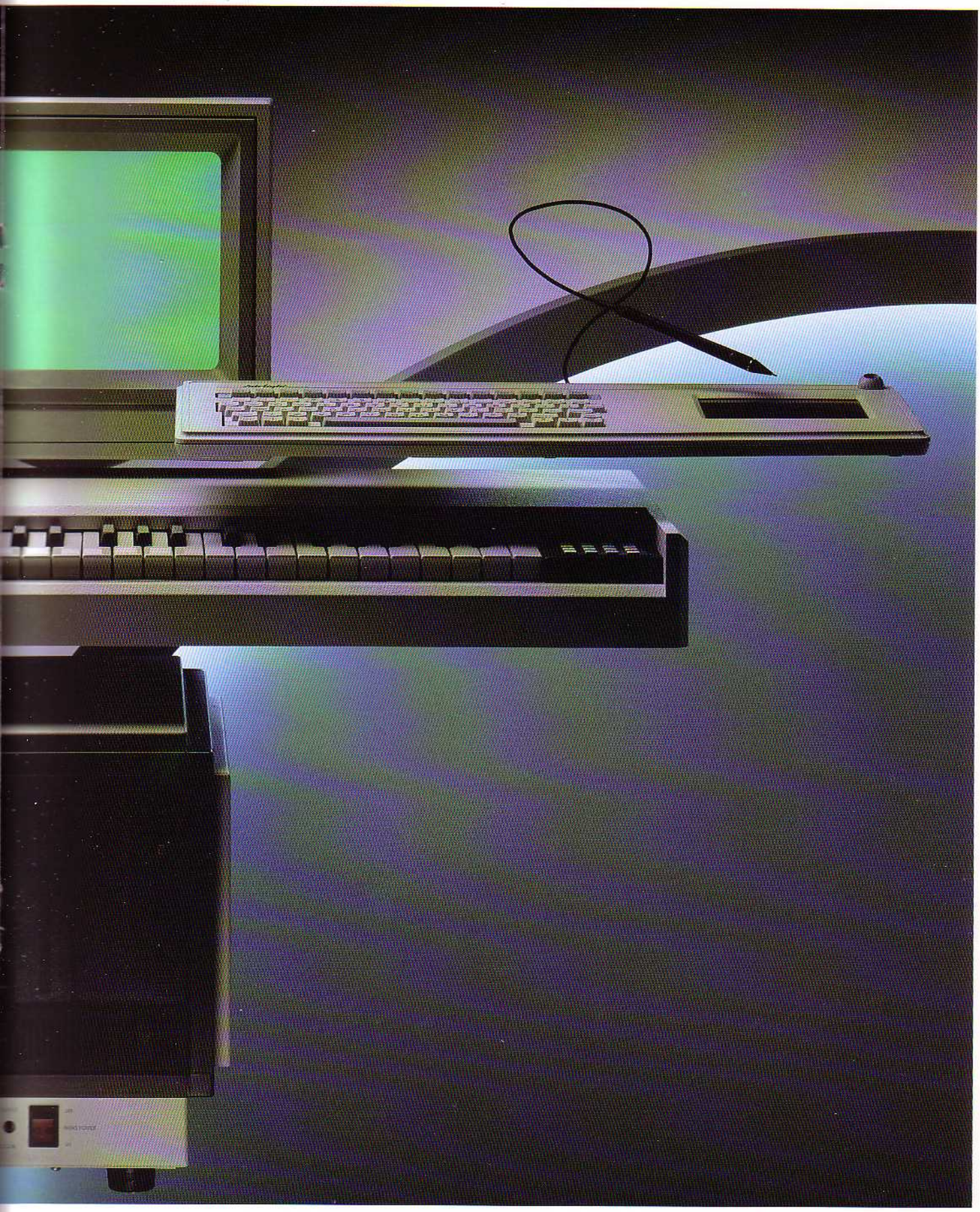


The Series III not only produces the sampled sounds of the highest quality available, it also allows you to play them with full expression. The effects display page allows parameters such as attack, decay, vibrato, etc., to be set individually for every key on the keyboard, if desired.

Live performances can be recorded from Fairlight's own MIDI keyboard which provides key velocity, eight variable controls (which include three foot controls) and five switches (including three foot switches). Each of these is assignable on the effects page providing the most appropriate live expression control over the sounds in use. The

keyboard also includes a 12 character alphanumeric readout and numeric command pad for fast access to sound and sequencer set ups – particularly helpful for live performances.

SERIES



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PAGE R

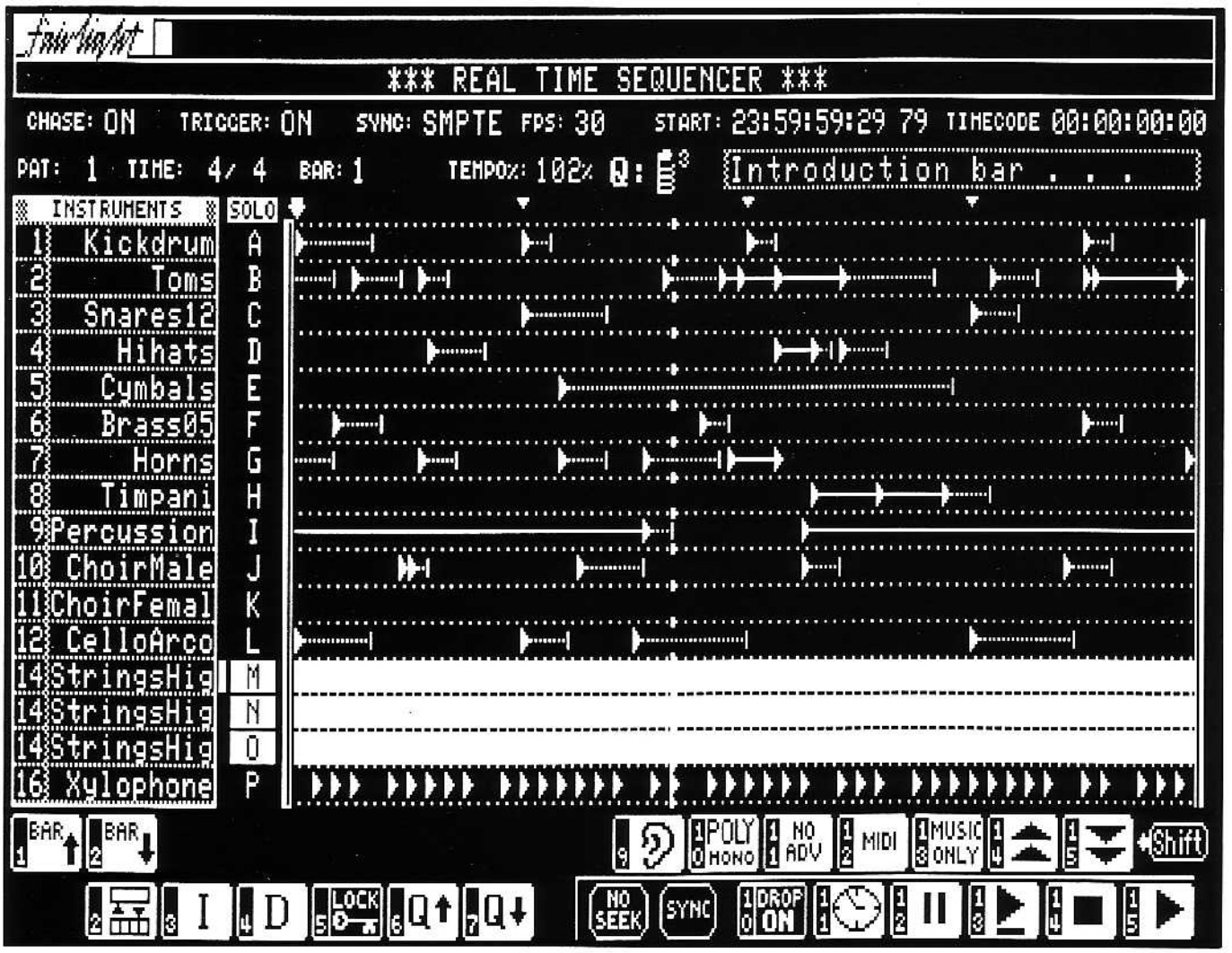
Page R, the Real-Time Sequencer, graphically presents 16 parts as individual lines across the screen.

The Series III has an expanded version of Fairlight's popular Page R. This is an interactive sequencer with a unique memory architecture which is particularly suited to creating rhythmic arrangements and establishing a composition's basic structure. It allows insertion and deletion of notes and patterns (measures) in real time.

Page R has 16 parts displayed as separate horizontal lines on the screen. Each note records pitch, key velocity and duration as well as pitch bend and an auxiliary control. Patterns are displayed one at a time on the screen, typically one measure in length. Over 250 patterns can be stored and arranged in any order. Patterns may then be grouped into sections with up to 26 sections available (labelled A-Z). It is also possible to create a section from any combination of patterns and/or other sections.

As well as its powerful real-time editing features, Page R offers many off-line editing functions. For instance, selected lines of one pattern may be transferred and transposed to other patterns. It is also possible to make global changes (i.e., throughout a whole part) of note information such as key velocity, attack, or duration settings. Page R not only records your creative inspirations but by its "live" flexibility it can actually aid you in the creative process.

SMPTE chase/lock provides the ideal setting for structuring music scores, laying-in sound effects, and synchronising to multi-track tape and disks.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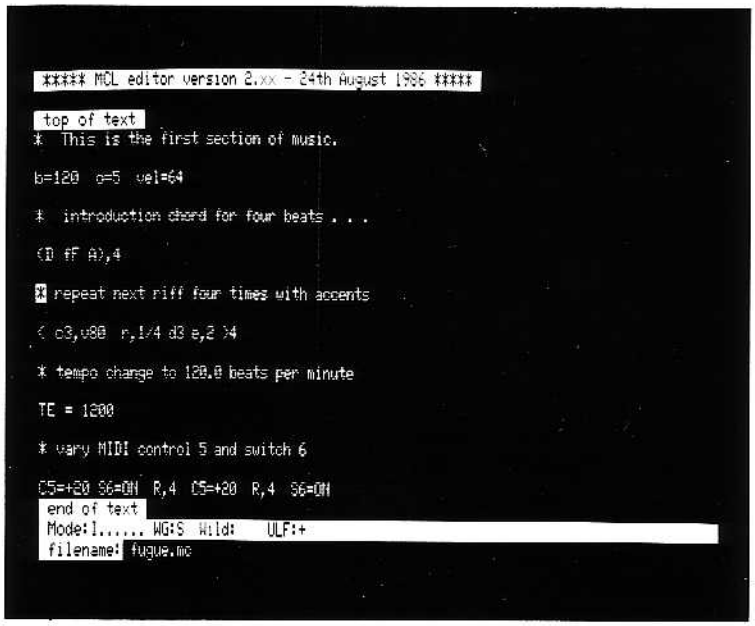
*** REAL TIME SEQUENCER ***
CHASE: ON TRIGGER: ON SYNC: SMPTE FPS: 30 START: 23:59:59:29 79 TIMECODE 00:00:00:00
PAT: 1 TIME: 4/ 4 BAR: 1 TEMPO%: 102% Q: Introduction bar . . .
INSTRUMENTS SOLO
1 Kickdrum A
2 Toms B
3 Snares12 C
4 Hihats D
5 Cymbals E
6 Brass05 F
7 Horns G
8 Timpani H
9 Percussion I
10 ChoirMale J
11 ChoirFemal K
12 CelloArco L
14 StringsHig M
14 StringsHig N
14 StringsHig O
16 Xylophone P
BAR
BAR
POLY MONO
NO ADV
MIDI
MUSIC ONLY
Shift
I
D
LOCK
Q
Q
NO SEEK
SYNC
DROP ON

MCL

The Music Composition Language



MCL composition starting with a chord, single riff and tempo change. Specific music commands are interspersed with comments. ▲

Graphic representations of menu options, notes, and control and switch settings display maximum relevant information on the CAPS page. ▶▶

Yet another method of music input to the Series III is available, the Music Composition Language (MCL). Notes, time values, effects and a range of other parameters can be typed into the system's memory. MCL offers the flexibility to specify any complex poly-rhythms and poly-tonalities that might be impossible to perform by any other means. Incorporating multi-level repeat and "nesting" facilities, as well as a powerful video screen editing feature, MCL minimises the typing required for complex musical pieces. Whole blocks of music can be moved, transposed, changed in tempo and copied. Simple macro-instructions enable you to make overall changes to the music with only a few keystrokes.

CAPS

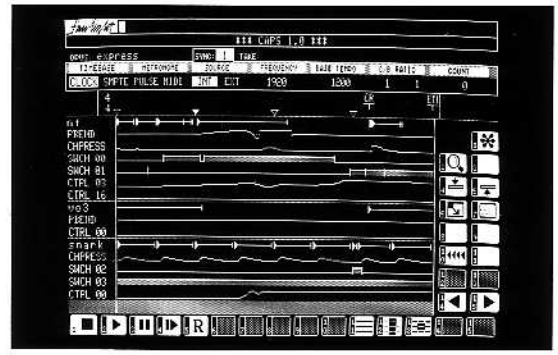
The Composer, Arranger, Performer Sequencer

An exciting new option under continuing development for the Series III, CAPS is the first musical tool to offer the musician complete control of the composition, arrangement and performance within the one software suite.

CAPS has been designed by musicians to think like a musician. Its unique features assist with each stage of the creative process.

The COMPOSER: Ensures that the initial composition stage, or entry of the musical "raw data", is as efficient as possible. CAPS is organised like a composer's scorepad optimised to deal with standard musical structures familiar to the composer. For example, CAPS understands conventional repeats, including first-time and last-time measures. Compositions can be entered by playing one or more parts in real-time, by graphic notational input, translation from MCL or Page R, or any combination. Composition size is not memory-limited and may be up to 480 measures of 80 fully polyphonic parts.

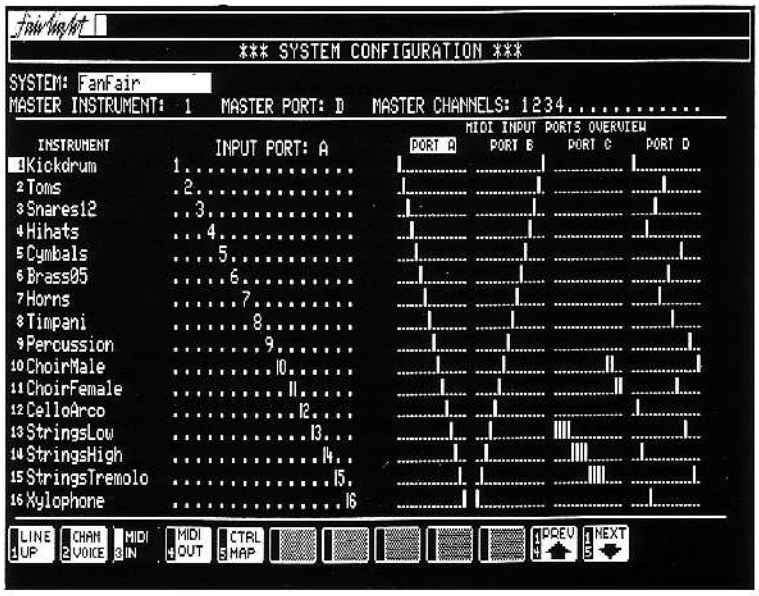
The ARRANGER: A powerful editor, again designed around familiar musical concepts. Full cut-and-paste facilities combined with the ability to understand key signatures and chord symbols relieve the tedium of many commonplace arranging processes. Features such as intelligent arpeggiation and

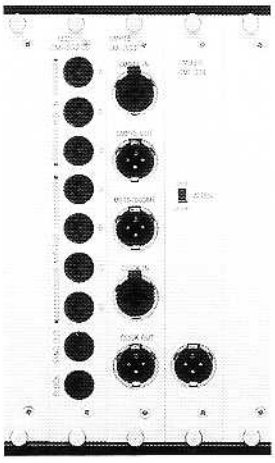


chordal padding are just the beginning.

The PERFORMER: Perhaps the most critical link in the creative chain is the performance. CAPS provides the detailed control of performance nuances required to produce the right "feel". The Series III dedicates a separate 68000 processor to MIDI management, including key on-off, polyphonic key pressure, pitch bend, controls and switches. This processor accurately times each event down to 1mS resolution for reproduction of subtle rhythmic modulations. Performances are organised into "take files", sections of which can be auditioned with different sections of another "take" so that best performances can be compiled without losing previous ones. For working with multi-track, SMPTE lock and chase are provided.

MULTI MIDI





Although the Series III has been designed as a complete system in itself, the industry standard MIDI specification has been used throughout its control architecture. The Series III can act as the master MIDI controller with performance control over external synths. 4 MIDI outputs can be independently assigned and programmed. Pitch and modulation wheels, switches and variable foot pedals are all freely assignable.

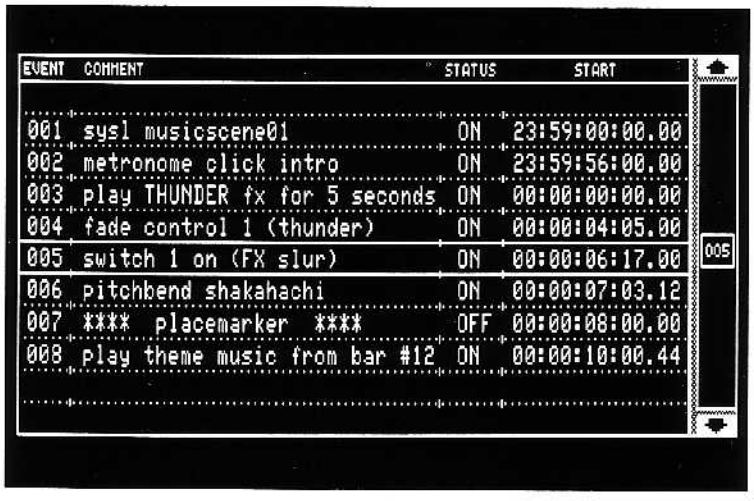
3 extra MIDI inputs allow simultaneous performance by additional MIDI controllers, such as Fairlight's Voicetracker, MIDI guitars, other keyboards (polyphonic aftertouch accepted), or sequencers.

Each of the CMI's MIDI ports can be treated as an independent 16 channel system. It is therefore possible to realise as many as 64 MIDI output and 48 MIDI input channels, in addition to Series III's 16 internal voices. This arrangement not only increases the available channels of MIDI, but it also helps reduce delays inherent in the MIDI standard.

EVENTSYNC

Film & Video Post

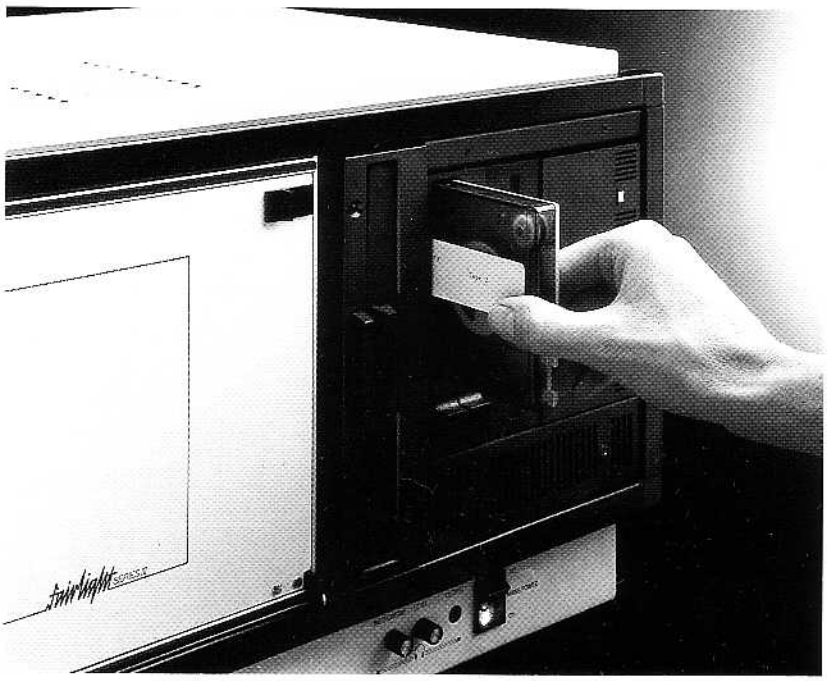
Series III's hardware architecture provides a uniquely flexible, general purpose control facility for manipulating and synchronising sound. Designed for use in sound F/X, foley, sound editing, and even submix applications, Eventsync is a SMPTE-based post production tool. It contains a list of SMPTE times which cue the required sound effects, dialogue, recorded music, and even the start of a whole composition from Page R, CAPS, or MCL. It also specifies the duration of a cue, the output channel that it should play from, and control parameters relating to its performance. Eventsync is an ongoing development commitment to the needs of modern post production audio.

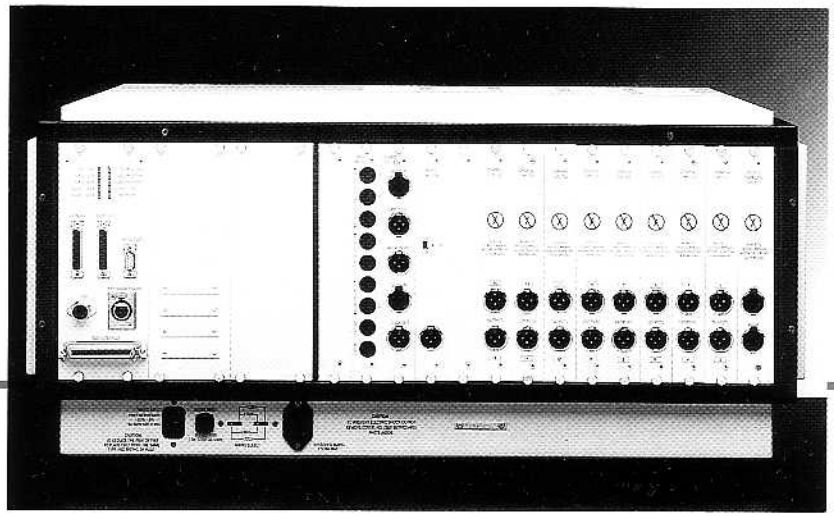


◀◀ **MIDI Page showing the channel/voice/port setup for external MIDI keyboards and sequencers controlling the CMI.**

▲ **Eventsync – sound effects are cued on time for track layering.**

HIGH DENSITY STORAGE





The key to Series III's mass storage capability is SCSI (Small Computer Systems Interface). This has become the officially accepted standard for interfacing mass storage devices to small and personal computers. The Series III studio will benefit greatly as new, very high density winchester, removable floppy and optical disks make significant advances in coming years.

At present, the portable Series III mainframe can contain 150 megabytes (formatted) of on-line winchester disk, plus a 60 megabyte removable tape cartridge.

A slave SCSI connector on the rear of the Series III allows virtually unlimited storage media to be added for sound, composition, and cue-list archiving.

LEGENDARY RELIABILITY

Fairlight's reputation for reliability is not an accident. Stringent quality control becomes even more important in a design as sophisticated as Series III. To achieve this, every circuit module in the digital cardcage is temperature cycled from 0°C (32°F) to 70°C (170°F) while special diagnostic programs detect any component failure which might not otherwise occur until that critical moment 12 months down the line.

On the other hand, if something should ever fail, the modular physical construction of Series III allows most failures to be repaired by simply exchanging any of the plug-in modules. Extensive diagnostic software helps to quickly locate the module responsible. In many cases modules can be replaced by a person with limited technical skills, after consultation with their nearest service centre. A worldwide network of qualified service facilities keeps downtime to an absolute minimum. Fairlight is committed to keeping you "on the air".

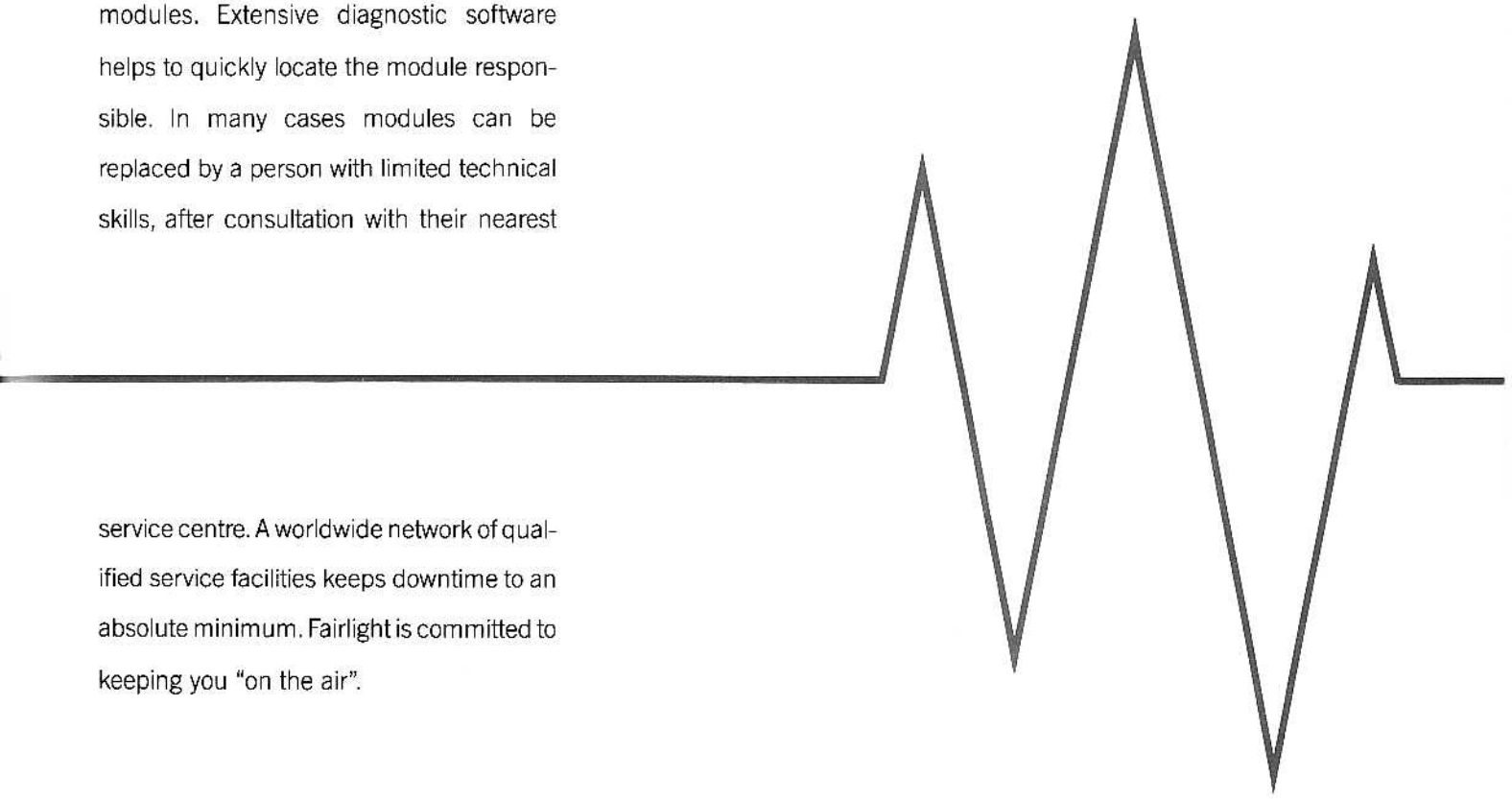
TELNET

Communications Package

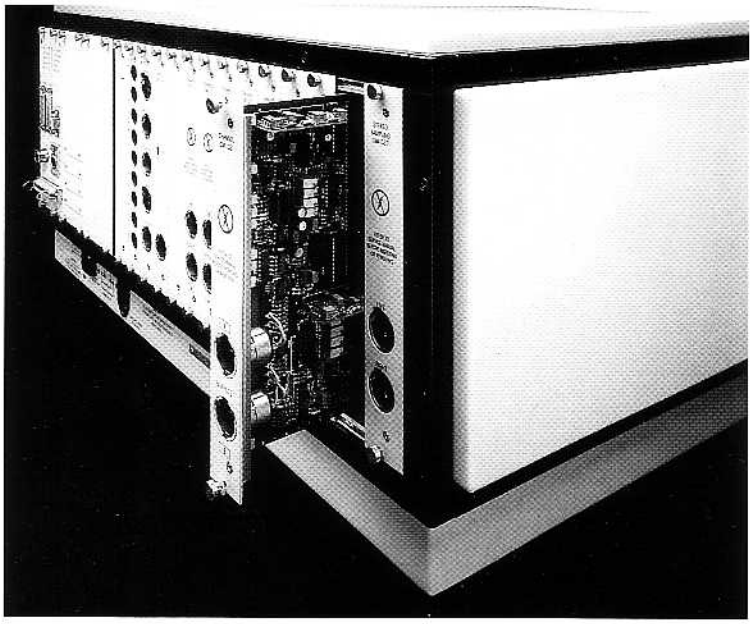
If you subscribe to an electronic mail system, Telnet software means that you can access the international networks direct from your Series III.

Fairlight provides several electronic information services which can be easily and instantaneously accessed using Telnet, the Series III, a modem or acoustic coupler and the telephone line.

"FIHOT", the user hotline, connects you directly to Fairlight head office and "FINEWS", a regular news bulletin, provides information on new hardware and software as well as operating and application hints.



THE PRESENT/THE FUTURE



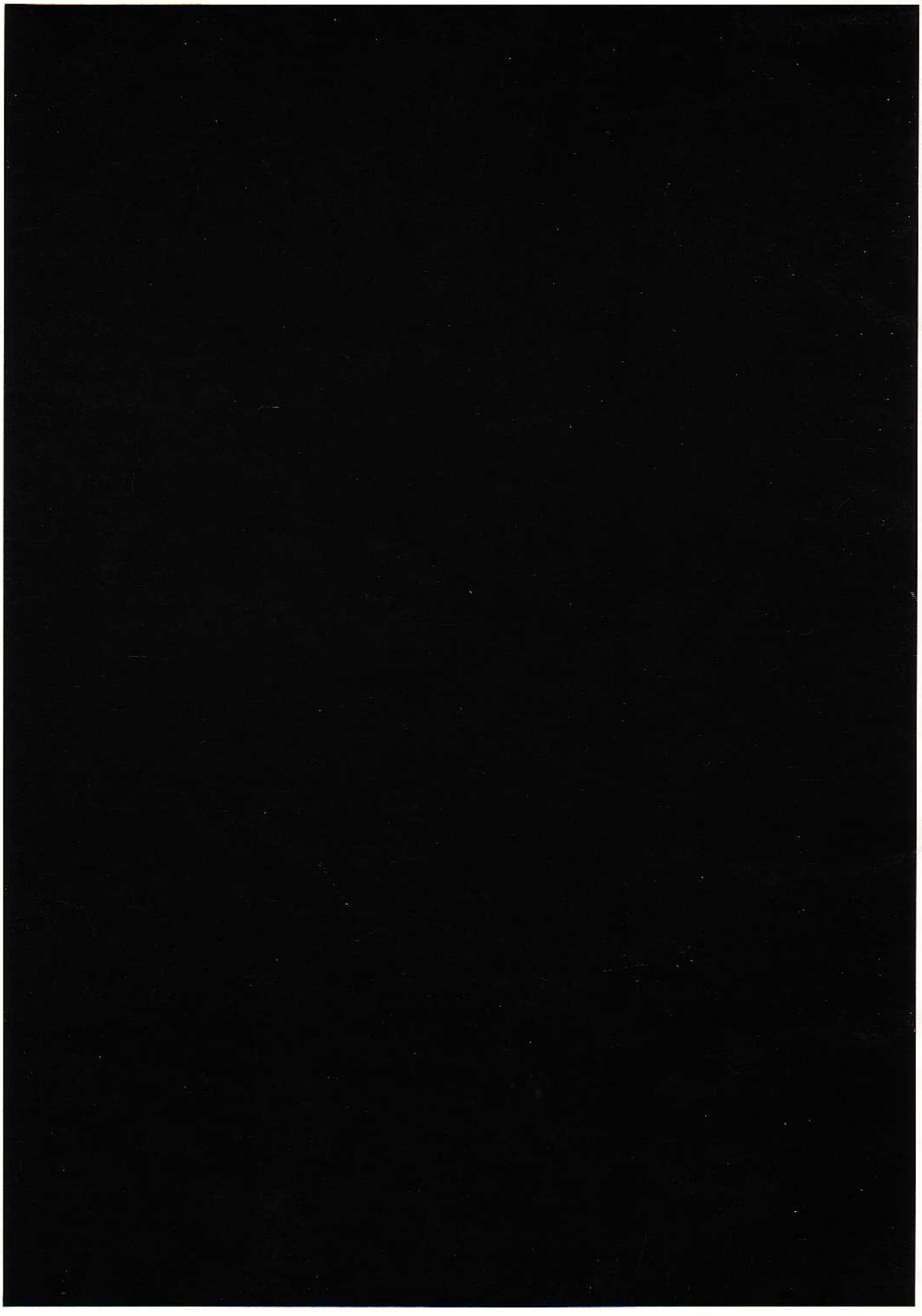
Series III's modular hardware and software design is open ended – so its features can be extended in the future as economically as possible.

Fairlight maintains one of the largest and most experienced research and development teams in the digital audio field. Feedback from Fairlight's worldwide family of users, many of them leaders in the industry, ensures that new and innovative concepts are always on the way.

Fairlight Instruments Pty. Ltd. 15-19 Boundary Street
Rushcutters Bay NSW 2011 Sydney Australia
Phone: (02) 331 6333 Telex: 27998 'FAIRLT'
Fax: (02) 332 3362 IMC E-mail FAIRLIGHT-AA JND104.

Fairlight Instruments Inc. 2945 Westwood Blvd.
Los Angeles CA90064 USA Phone: (213) 470 6280
Telex: 910 342 6481 'FAIRLIGHT LA' Fax: (213) 474 9716

Fairlight Instruments Inc. 110 Greene Street New York City
New York 10012 Phone: (212) 219 2656



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