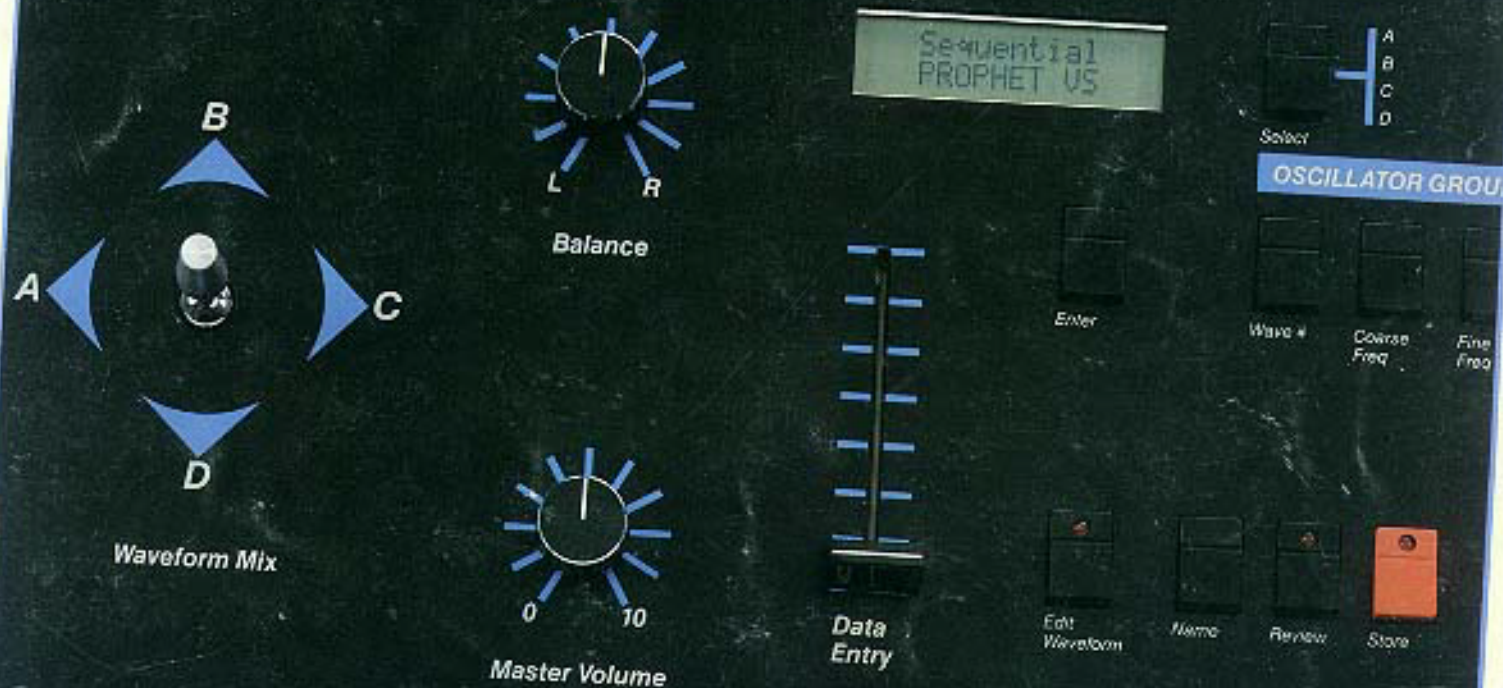


I N T R O D U C I N G

Prophet VS

DIGITAL VECTOR SYNTHESIZER



VECTOR SYNTHESIS

SEQUENTIAL

THE Prophet VS

Sequential's PROPHET VS gives you something new—an innovative technology called VECTOR SYNTHESIS providing timbres, textures, and sound animation not previously available. The PROPHET VS lets the artist build an infinite number of complex waveforms and mix them together dynamically to create custom sounds ranging from old standards like strings and electric piano, to sophisticated stereophonic digital sounds.

What is Vector Synthesis?

The concept is simple. Imagine a two dimensional grid defined by an X-Y axis. Then imagine locating the four oscillators of each VS voice on the grid, like the four directions on a compass. Each point on the grid defines a "relative mix" of the 4 oscillators. By listening to the "mix," you can hear that each grid-point has a specific, characteristic sound. Now the fun really begins. By moving from point-to-point on the grid (called "vectoring"), you cause a smooth and gradual evolution of the sound to occur, a result of the constantly changing mix of the oscillators. It is this feature—the ability to crossfade through a wide variety of timbres in real time—that is the real power behind Vector Synthesis. The Prophet VS provides a variety of controllers for changing the relative mix of oscillators over time, such as programmable 5-stage envelopes, keyboard velocity and aftertouch sensing, key position sensing, 2 independently programmable LFO's, and a joystick for manually moving around the grid (it's a great performance tool!).

Additionally, Vector Synthesis provides a straight forward and easy-to-use technique for creating sound waveforms. Since the "summed output" (or relative mix) of the 4-oscillators is itself a complex waveform, if you like what you hear you can store it in non-volatile RAM for future use as a starting point in programming even more complex sounds. Also, individual harmonics can be added to fine tune the waveform even more.



SEQUENTIAL INTRODUCTIONS

- 1978: PROPHET 5**
The first fully programmable polyphonic synthesizer
- 1982: PROPHET 600**
The first MIDI equipped synthesizer
- 1983: DRUMTRAKS**
The first MIDI equipped drum machine
- 1984: SIX-TRAK**
The first programmable multi-timbred synthesizer
- 1985: PROPHET 2000**
The first studio quality 12-bit multi-sampling keyboard under \$2500
- 1986: PROPHET VS**
The first Digital Vector synthesizer

DIGITAL VECTOR SYNTHESIZER



The VS Voice

Each Prophet VS voice is built from 4 independent, 12-bit digital oscillators. Each oscillator's frequency can be controlled independently, and each oscillator's waveform can be unique, selected from among the 128 on-board waveforms, including white noise. 96 of these waveforms are stored in permanent memory, an additional 32 user-definable waves are stored in non-volatile RAM. The artist first "loads" each oscillator with a selected waveform. Next, the relative levels of the 4 oscillators are "mixed" until the desired sound is heard. Programmable five stage 12 parameter envelopes featuring loop and repeat functions can dynamically control this oscillator mix automatically. Each of the instrument's eight voices also features a four-pole low pass filter and a VCA which can be independently controlled by its own envelopes. And for the first time ever, each voice can be easily manipulated in real-time anywhere within the stereo field, adding unbelievable movement and impact to your musical performances.

MIDI & the VS

The MIDI implementation of the Prophet VS is more open-ended than any synthesizer on the market today. The VS is bi-timbred, and can operate in MIDI Modes 3 and 4 as two completely independent

and powerful synthesizers. Its exhaustive multi-mode capabilities allow for comprehensive interfacing with other synthesizers, guitar controllers, sequencers and computers. This advanced MIDI implementation insures that the PROPHET VS will remain a valuable musical instrument for years to come.

VS Performance Ease

The Prophet VS responds to your tough performance requirements with ease. It features a 5-octave weighted action keyboard that is both velocity and pressure sensitive. The keyboard can be programmably split and stacked. The VS also introduces the most versatile real-time arpeggiator yet designed, offering options like polyphonic voicing, rests, and layering. Easy access to extensive parameter controls coupled with an array of status LED's and a backlit 32-digit Liquid Crystal Display provide continuous feedback, all designed to simplify the operation of the instrument. ROM cartridges are available to provide instant access to an additional 100 programs, while RAM cartridges provide storage for up to 100 programs and 32 custom waveforms. And just for fun, a built-in automatic patch generating utility can randomly select sound parameters values for quick, easy, and interesting patch making. Like all PROPHETs, the VS is backed by Sequential's one year warranty on parts and labor.

From the Prophet 5 to the Prophet VS, Sequential has consistently provided professional musicians with new and powerful instruments for creating music. The new PROPHET VS can be experienced at your authorized Sequential Dealer. Don't miss hearing all that the VS has to offer—insist that your demonstration be "in stereo?"

SEQUENTIAL

Prophet VS**SEQUENTIAL****S P E C I F I C A T I O N S****Keyboard**

81 Note (C-C) weighted-action keyboard with polyphonic velocity and monophonic pressure (aftertouch) sensitivity
 Programmable split point and program link
 Double Mode (with detune & delay) for sound layering and echo effects
 Unison mode with detune, last note priority
 Polyphonic glide

Voice Architecture

8-voice
 4 digital waveform oscillators per voice
 128 digital waveforms always available
 96 waveforms (including noise) in ROM
 32 user-definable waveforms (created using the joystick) stored in on-board non-volatile RAM
 8 analog filters, 4-pole low-pass 24dB/octave slope
 3 complex envelope generators, each with 12 parameters (see below)
 Programmable placement per voice in a stereo field (128 positions)
 Programmable panning and true stereo chorusing

Low Frequency Oscillators

Two programmable LFOs, each with triangle, sawtooth, ramp, square, and random waveforms
 Rate from .08Hz to 15Hz

Complex Envelope Generators

5 envelope points (0 through 4) available, with programmable rate and level for each (no rate for point 0).
 Loop Mode for each, with 8 possible combinations.
 Loop Repeat—1 through 7 or Continuous.
 Programmable alternate release (alternate rate for point 4).

Modulation/Control Routing

Sources include the following:

LFO 1
 LFO 2
 Pressure **
 Velocity **
 Keyboard **
 Filter Envelope **
 Modulation Wheel

(* modulation amount is bi-polar)

Destinations include the following:

Oscillator Frequencies
 Filter
 Mix A-C
 Mix B-D
 LFO 1 Depth and Rate
 LFO 2 Depth and Rate
 Amplifier
 Panning
 Chorus Rate
 Chorus Depth

Program Parameters

32-character LCD back-lit display
 Programs can be named (8 character limit)
 100 internal programs
 100 external cartridge programs
 Review function to compare programs while editing

Arpeggiator

Modes:
 Up/Down
 Up Only
 Down Only
 Assign
 Reverse
 Random
 Number of octaves (1, 2 or 3)
 Repeats per key (1, 2, 3, or 4)
 Rate (internal or MIDI clock)
 Clocks per Step (2 through 24)
 Latch & Transpose:
 Normal
 Auto-latch
 Extend (1 to 128 notes)
 Split Mode:
 Left Arpeggiation
 Right Arpeggiation
 Dual Arpeggiation
 OFF
 Velocity ON/OFF
 Rest ON/OFF (uses highest key)
 Polyphonic/Monophonic option
 Layering ON/OFF

Inputs:

MIDI IN
 Footswitch, alternate release
 Footswitch, auxiliary

Outputs:

Right/Mono
 Left/Headphones
 MIDI OUT
 MIDI THRU or 2nd MIDI OUT (selectable)

Optional Accessories:

RAM cartridge, non-volatile, for storing up to 32 waveshapes and 100 programs.
 Footswitches
 Factory ROM cartridges with an additional 100 programs

Dimensions:

38.1" Wide x 15.7" Deep x 4.1" High
 Approximate weight: 36 pounds

Power Requirements:

110/220 Volts

Specifications subject to change without notice.

SEQUENTIAL

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