The Korg Wavestation also features a complete set of MIDI transmission controls, making it an ideal master controller for the most extensive professional MIDI setups. The Korg Wavestation also offers performance, 5-profilers, and 32-step sequencers.

Additional Functions of the Korg Wavestation:

- Can be controlled by MIDI and sequencers.
- Special features include up to 24-volts output, a maximum of 16 programmable channels, and an inclusion of a built-in multi-function controller, multi-mode engines, and a variety of audio effects.
- The Korg Wavestation offers many more features, such as real-time performance, keyboard for professional use.
EXPANDING THE POTENTIAL OF THE SYNTHESIZER

The new Korg Wavestation was designed to provide extensive sound creation capability for absolutely any sound production. It allows you to craft your sound with an exceptionally broad selection of sonic building blocks—everything from the bright, precise sounds of digital synthesis to the warm, full sound of analog synthesis, as well as the real-world sounds of sampled acoustic instruments. This means that you can not only recreate any existing sound, but in addition you can create completely original sounds that have never been heard before.

The Korg Wavestation begins with unprecedented power in its basic synthesizer functions: 32 digital oscillators, 32 digital filters, 64 envelope generators and 64 LFOs. This is a sound generation system of enormous potential, a sophisticated synthesizer for meeting the demands of the most discriminating music professional.

The Korg Wavestation incorporates a wealth of sophisticated tone generation functions, including Korg's newly developed AV (Advanced Vector) Synthesis System and Wave Sequencing. Advanced Vector Synthesis markedly extends the potential of the instrument, since up to four waveforms can be combined in any fashion or configuration to create an unlimited amount of sound variations. Wave Sequencing allows the musician to link up to 256 different waveforms for serialized playback.

Together, these new functions make it possible to create an entirely new dimension of sound that was previously impossible with PCM sound sources widely used in other instruments and sampling machines. With all its powerful features, the Korg Wavestation is a virtually limitless tool for sound creation.
ADVANCED VECTOR SYNTHESIS SYSTEM

Korg's new Advanced Vector Synthesis system is the first step in the Wavestation's powerful sound creation capabilities. A total of 365 different sounds have been included in the Wavestation's PCM Sound ROM. Vector Synthesis is unique in that it lets you combine these sounds in ways previously unimaginable. Simply select up to four sounds and move the joystick among them to create a new sound program. The joystick alters the ratio or balance of the four waveforms to make an entirely new, composite waveform. Moving the joystick also makes it possible to sequence the variations, while the MIX ratio changes (see Fig. 1).

Musically, this means that the Korg Wavestation provides full dimensional sound with rich textures and highly complex harmonic variations that simply were not possible to create using a conventional synthesizer system.

Fig. 1. USING THE JOYSTICK TO SYNTHESIZE WAVEFORMS

Begin by selecting four separate waveforms to be assigned to the four points A, B, C, and D. The MIX ratio of each waveform can be changed by moving the joystick.

As shown in the illustration, when moving the joystick from position 0 to 4, the MIX ratio will change as indicated in Chart 1.

The sound can be further altered by selecting a loop between two points of the MIX ratio envelope. For example, when the four points are set as shown in the illustration and a bi-directional loop of 1 - 3 is selected, the MIX ratio will change from 0 to 1 in order after the key is pressed. If the key is held down, the sound will loop between points 1 and 3 in the order 1 to 2 to 3, and so on. When the key is released, the MIX ratio will progress from 3 to 4, completing the sound's cycle. In other words, the timbre of the sound varies according to the movement between the specified points. The attack portion of the sound envelope goes from point 1 to 2, the sustain portion moves in a bi-directional loop between 1 and 3, and the release portion goes from 3 to 4.

WAVE SEQUENCING

Wave Sequencing makes it possible, for the first time, to program your own original sound waveforms by combining any of the 365 basic waveforms, a function unavailable on conventional synthesis systems. Up to 256 waveforms can be linked to make up one wave sequence. The harmonic structure can be changed continuously, allowing you to recreate the rich timbral characteristics of analog synthesizers and the full sound of pulse width modulation. By fully utilizing the sonic advantages of sophisticated PCM technology, the AV synthesis system is capable of producing a wider range of sounds than was ever before possible.

Melody sequences and rhythm sequences can also be programmed as an integral part of the sound by setting the tuning, duration, and crossfade time of each waveform. Moreover, wave sequences can be perfectly synchronized with an external MIDI clock signal, further extending the music production capabilities of this remarkable instrument.

A total of 128 wave sequences (32 ROM preset, 64 RAM user, and 32 card) are available in memory, and can be further processed using filters, LFOs, envelopes, effects, or vector synthesis mixing.

FLEXIBLE MODULATION MATRIX

The advanced sound processing of the Korg Wavestation continues with a complete set of 13 modulation sources, including two independent LFOs, after touch, modulation wheel, key velocity and keyboard tracking, among others. Moreover, simultaneous modulation by two sources can be accomplished. Modulation destinations include cutoff frequency, amplitude, LFO rate, LFO depth and oscillator pitch. The result is an advanced musical instrument that features far greater