Expanding the Range of Sound Creation with Software

Software has now fully entered the realm of electronic music. With the proper software and application programs, sound creation and synthesizer programming have the possibility of becoming faster and more creative than ever before. Now KORG answers this technological challenge by providing applications for the M1 and M1R Music Workstations.

KORG SOUND LIBRARY PCM PROGRAM CARD

The M1 and M1R Music Workstations are the first instruments to utilize Multi-sound 16-bit PCM sound data in a synthesizer. With the PCM Program Cards, which are continually being designed by expert sound engineers, the M1 and M1R can supply new program Combinations as well as PCM sound data. Each card provides you with a whole new set of sound building tools and variations with which to work.
- MSC-1S
- MSC-2S "SYNTHE1"
- MSC-3S "DRUM1"
- MSC-4S "ORCHESTRA"
- MSC-5S "PIANO"
- MSC-6S "FRETTED INST1"
- MSC-7S "SYNTHE2"
- MSC-8S "PERCUSSION1"
- MSC-9S "ORGAN"
- MSC-10S "ETHNIC1"
- MSC-11S " BRASS"

KORG SOUND LIBRARY PROGRAM CARDS

These cards are the products of expert synthesizer programmers, currently active in the forefront of modern music production, and were created by taking full advantage of the advanced capabilities of the M1 and M1R (100 Programs and 100 Combinations are included on each card.). The Programs and Combinations can, be used as they are, for live concert or studio recording work. However, they also provide a valuable creative springboard by which you can create your own Programs and Combinations.
- MPC-11 AKIRA
- MPC-12 WORLD OMNIBUS
- MPC-13 BUNMAY
- MPC-00 M1 STANDARD (pre-loaded preset program data)

SEQUENCE CARDS

These cards contain specially programmed sequence data and rhythm pattern data for the M1 and M1R.
- MPC-00S "Oh, Yes!" (pre-loaded sequence data)
- MPC-P01 "Rhythm/Standard" (rhythm pattern data)

REAR PANEL

M1

❶POWER: Power switch. ❷PCM DATA: For insertion of PCM card. ❸MIDI: MIDI THRU outputs the data received through MIDI IN unaltered. ❹CONTRAST: For adjusting the brightness of the display on the front panel. ❺DAMPER: Connects to the footswitch for damper pedal operation. ❻ASS. PEDAL/SW (1, 2): Terminals which connect to pedals and footswitches. These can be assigned to control certain parameters. ❼OUTPUT (1/L, 2/R, 3, 4): Output terminals. Sound Programs can be assigned to each terminal. ❽PHONE: For connection of stereo headphones.

M1R

❶MIDI THRU terminal. ❷MIDI OUT terminal. ❸MIDI IN terminal. ❹ASS. PEDAL/SW terminals (1, 2) connect to pedals and footswitches. The particular functions controlled are set in the Global Mode. ❺OUTPUT terminals (1/L, 2/R, 3, 4): Sound output terminals of the M1R. Sound Programs can be assigned to each terminal.

OPTIONS

- **Memory card RAM** MCR-03
- **Foot controller** EXP-2 KVP-002
- **Pedal switch PS-1** PS-2
- **Damper pedal DS-1**

EXP-2

PS-2

- **Stand** KSS/KSSB KSM1N/KSM1BN
- **Cases**
  Flight case for the M1: FC-M1
  Hard case for the M1: HC-M1
  Semi-hard case for the M1: SHC-M1
  Flight case for the M1R: FC-M1R
  Hard case for the M1R: HC-M1R

KSSB

SHC-M1

HC-M1

FC-M1

FC-M1R

HC-M1R

- **Headphones KH-1000**
- **Stage monitor** SM-75
- **Personal monitor** PM-30
- **SYNC/MIDI cable**
  1.5m
  3m
  5m
  1m + 0.5m

- Specifications and features are subject to change without notice for further improvement.
- Color reproduction in printed materials may differ from actual product appearance.

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M1/M1R
MUSIC WORKSTATION / MUSIC WORKSTATION

KORG

From the Building of Sounds to the Creation of Music.
A Workstation for the Modern Musician.

The music scene is in a state of constant change. New trends, new sources of inspiration, new creative avenues open up continuously. More now than ever before, instruments that allow musicians to instantly transform the products of their imagination into expressive music are needed.

With the AI Synthesis System, upon which the M1 and M1R are based, music professionals and musicians of every caliber have found just what they need.

The AI Synthesis System features four different types of built-in sampled sound data—all of high-quality 16-bit resolution, stored in the large capacity 2-MegaWord (4-Megabyte) ROM memory, and processed completely in digital form by two independent synthesizer systems.

This approach, the AI Synthesis System takes the expressional range of the synthesizer one quantum leap forward.

RICHLY TEXTURED, HIGH-QUALITY SOUND—THE AI SYNTHESIS SYSTEM

M1
MUSIC WORKSTATION

ai AI Synthesis System

M1R
MUSIC WORKSTATION

SUPERIOR SOUND QUALITY AND EXPRESSIVE POWER THROUGH THE AI SYNTHESIS SYSTEM

The accuracy of digital sound is preserved from the very beginning, with the original sound data to the application of effects. This is the secret behind the AI Synthesis System and is the secret by which top players and music professionals worldwide are taking sound creation to unprecedented heights. The main characteristic of the AI Synthesis System is its four different types of built-in 16-bit quality sampled sound data, stored in the large capacity 2-MegaWord (4-Megabyte) sound data bank. Two independent synthesizer systems round out this advanced sound generation method, perfectly preserving the sonic quality of the signal through complete digital processing.

This is how the synthesizer has taken one quantum leap forward. This is AI Synthesis.

SOUND DATA SECTION: 4 TYPES, 144 DIFFERENT SOUNDS

The AI Synthesis System consists of 4 separate sections. Sound data section is basis of this system and is composed of Multi-Sound data, Digital Synthesizer Waveform data, Drum Sound data, and Separated Waveform data. A total of 144 sounds are included among these four types of waveforms. Because of the wide variation of sounds available, you can select precisely the sound that you want, before you even begin building it and editing it. Moreover, you can assign different sounds to the two oscillators for creation of an absolutely unlimited amount of sounds.

PROCESSING CHART

The organization chart of the AI synthesis system can be divided into four main sections as shown below:

① Sound data section ② VDF section ③ VDA section ④ Effect section
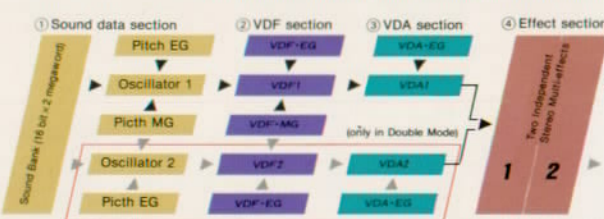
Four sound data sections are installed in the sound data bank and data can be assigned in any fashion to oscillators 1 and 2.

In the multi-effect section, independent effects can be assigned to function together in either serial or parallel operation.

Sound Data List

1 Piano	38 Tuba Flugel	73 DWGS Organ 2	107 Snare 4
2 E. Piano 1	39 Double Reed	74 DWGS Voice	108 Side Stick
3 E. Piano 2	40 Koto Trem	75 Square Wave	109 Tom 1
4 Clav	41 Bamboo Trem	76 Digital 1	110 Tom 2
5 Harpsicord	42 Rhythm	77 Saw Wave	111 Closed HH1
6 Organ 1	43 Lore	78 Digital 2	112 Open HH1
7 Organ 2	44 Lore*	79 25% Pulse	113 Closed HH2
8 Magic Organ	45 Flexatone	80 10% Pulse	114 Open HH2
9 Guitar 1	46 Wind Bells	81 Digital 3	115 Crash
10 Guitar 2	47 Pole	82 Digital 4	116 Conga 1
11 E. Guitar	48 Block	83 Digital 5	117 Conga 2
12 Sitar 1	49 Finger Snap	84 DWGS TRI	118 Timbales 1
13 Sitar 2	50 Pop	85 DWGS Sine	119 Timbales 2
14 A. Bass	51 Drop		120 Cowbell
15 Pick Bass	52 Pluck	Separated Waveform Data	121 Clape
16 E. Bass	53 Pluck	86 Pole	122 Tamborine
17 Fretless	54 Vibe Hit	87 Block	123 E. Tom
18 Synthe Bass 1	55 Metal Hit	88 Drop	124 Ride
19 Synthe Bass 2	56 Pick	89 Breath	125 Rap
20 Vibration	57 Pole	90 Pluck	126 Whip
21 Bell	58 Wire	91 Vibe Hit	127 Shaker
22 Tubular	59 Pan Wave	92 Hammer	128 Pole
23 Bell Ring	60 Ping Wave	93 Metal Hit	129 Block
24 Syn Mallet	61 Fv Wave	94 Dist	130 Finger Snap
25 Kalimba*	62 Mv Wave	95 Bass Thumb	131 Drop
26 Kalimba		96 Bas Thumb 1	132 Vibe Hit
27 Flute	Digital Synthesizer Waveform Data	97 Bas Thumb 2	133 Hammer
28 Pan Flute	63 DWGS E.P. 1	98 Voice Wave	134 Metal Hit
29 Bottles	64 DWGS E.P. 2	99 Voice Wv 1	135 Pluck
30 Voices	65 DWGS E.P. 3	100 Voice Wv 2	136 Flexa Tone
31 Choir	66 DWGS Piano		137 Wind Bell
32 Strings	67 DWGS Clav	Drum Sound Data	138 Tubular 1
33 Brass 1	68 DWGS Vibe	101 Kick 1	139 Tubular 2
34 Brass 2	69 DWGS Bass 1	102 Kick 2	140 Tubular 3
35 Tenor Sax	70 DWGS Bass 2	103 Kick 3	141 Tubular 4
36 Mute TP	71 DWGS Bell 1	104 Snare 1	142 Bell Ring
37 Trumpet	72 DWGS Organ 1	105 Snare 2	143 Metronome 1
		106 Snare 3	144 Metronome 2

★ Programs marked with an asterisk have the same pitch throughout the range of the keyboard.

NEWLY DEVELOPED VDF FOR SMOOTH, CLEAR FILTERING

In the VDF (variable digital filter) and VDA (variable digital amplifier) sections, the basic sounds produced in the sound data section are shaped in both volume and timbre for the final sound output. The VDF (variable digital filter), recently developed by KORG, is used for filtering. The VDF is capable of filtering with unusual clarity and flexibility. The VDA section processes the high-quality sound data of the true 16-bit processing, carried from the sound data section through the VDF section, in a completely digital format to perfectly preserve the sound quality. And the new A-D-B-S-S-R envelope generator allows you the flexibility of shaping the final sound with a greater degree of accuracy and in more detail than ever before.

INDEPENDENT TWO-SYSTEM DIGITAL MULTI-EFFECTS

In the AI Synthesis System, comprehensive control over all elements that make up the final sound is provided—and this is true right down to the effects sections of the M1 and M1R. Two independent stereo effects make up the multi-effect system, a clear departure from existing effect-installed synthesizers. As the final step of AI Synthesis, it provides colorful expressive capabilities and adds movement and texture to the tone of the sounds. Any effect can be selected freely from 33 different effects and the parameters can be controlled as desired. Moreover, the widest possible range of effects is available, including an exciter and a rotary speaker effect. This effect section, while just a portion of the high-quality sound shaping system of the M1 and M1R, is more comprehensive and professional than many stand-alone units.

STREAMLINING THE CREATIVE PROCESS

Just as their names indicate, the M1 and M1R Music Workstations function as total performance stations for music creation. Both are equipped with a Multi-Mode function which lets you assign a maximum of eight programs to different sections of the keyboard in any fashion you desire and effectively play them as eight separate synthesizers. And the built-in

8 track sequencer makes total music performance—including the rhythm section—an exciting realization, and all with the use of just one M1 Music Workstation.
■ The extensive built-in 8-track sequencer is one of the central functions of the M1 Music Workstation and has a maximum memory capacity of 7,700 notes (15,400 events). All editing facilities including a comprehensive punch in/out feature are, of course, provided. Easy operation controls emulate those of a normal multi-track tape recorder. A step write recording feature enables greater convenience in creating rhythm parts and difficult-to-play passages. In fact, the sequencer has all the advanced functions you need for music creation.
■ A performance editor function is also included which allows you to change various parameters, such as the EG and cutoff frequency of sound Programs as well as the overall level of each sound Program in a Combination, without the necessity of selecting individual parameters. This lets you make broad, dynamic changes in the sound in realtime, as you paly.
■ With the User Scale function, the M1 makes it possible for you to create original tunings by changing the pitch of the 12 tones of C to B in a 50-cent range around the basic equal temperament scale.

DIRECT EXPRESSIVE CONTROL OR COMPACT REMOTE SOUND SOURCE: THE POWERFUL PERFORMANCE POTENTIAL OF THE M1 AND M1R

The M1 is equipped with a touch- and pressure-sensitive keyboard while the M1R is 2-unit rackmount module. Depending on your present (or future) needs and your music system; these two performers are ideal as main instruments for any number of situations, including live concerts and studio recording sessions. Moreover, they can be used as multi-sound sources (for example, as a digital drum kit) for automatic playing from a connected computer. And these two instruments, when used together, double the capacity of either used alone, providing a maximum of sixteen different Programs that can be used out of a selection of up to 400 Programs and Combinations. The M1R employs a MIDI Overflow function for playing of up to 32-voice polyphony, a particular benefit when executing thickly textured parts over a sequencer-driven orchestration. Whether recording or playing live, the advanced features of the M1 and M1R give you unprecedented dynamic performance and expressive potential.

SPECIFICATIONS

M1
Sound generation method: AI Synthesis system (full digital sound processing)
Sound source: 16-voice, 16-oscillator (Single mode)
8-voice, 16-oscillator (Double mode)
Keyboard: 61-key (with initial and after touch)
Waveform memory: PCM; 2-Megaword (4-Megabyte)
Quantization: 16-bit
Filter section: VDF (variable digital filter)
Amplifier section: VDA (variable digital amplifier)
Effect section: 2-system digital multi-effects
Program memory capacity: 100 Programs
Combination memory capacity: 100 Combinations
Sequencer section: 10 songs, 100 patterns, max. 7700 notes; 8 tracks, 8-bit multi-timbral operation (Dynamic Voice Allocation)
Controller inputs: Assignable footswitches (pedals) 1/2
Cards slots: PCM data/Program/Combination/Sequencer data
Outputs: 1/L, 2/R, 3, 4, stereo headphones
MIDI terminals: IN, OUT, THRU
Display: Backlit LCD (40 characters x 2 lines)
Dimensions: 1058(W) x 355(D) x 110(H)mm (41-11/16" x 14" x 4-5/16")
Weight: 13.5kg (29 lbs. 11 oz.)

M1R
Sound generation method: AI Synthesis system (full digital sound processing)
Sound source: 16-voice, 16-oscillator (Single mode)
8-voice, 16-oscillator (Double mode)
Waveform memory: PCM; 2-Megaword (4-Megabyte)
Quantization: 16-bit
Filter section: VDF (variable digital filter)
Amplifier section: VDA (variable digital amplifier)
Effect section: 2-system digital multi-effects
Program memory capacity: 100 Programs
Combination memory capacity: 100 Combinations
Sequencer section: 10 songs, 100 patterns, max. 7700 notes; 8 tracks, 8-bit multi-timbral operation (Dynamic Voice Allocation)
MIDI Overflow Function
Controller inputs: Assignable footswitches (pedals) 1/2
Cards slots: PCM data/Program/Combination/Sequencer data
Outputs: 1/L, 2/R, 3, 4, stereo headphones
MIDI terminals: IN, OUT, THRU
Display: Backlit LCD (40 characters x 2 lines)
Dimensions: 430(W) x 405(D) x 88(H)mm (16-15/16" x 15-15/16" x 3-7/16")
Weight: 5.9kg (13 lbs.)