You’ve always wanted to have complete control over your music. And have it in a single device—ideally, in your rhythm machine, the place where your music starts. But you also need control that’s flexible and comprehensive enough to ensure that your music sounds like it’s coming from a human being, not a machine.

That’s exactly what the Korg S3 Rhythm Workstation gives you. The S3 is a professional rhythm machine with superior sounds. But it’s so packed with sophisticated features and functions, so comprehensive in its applications, and—in a word—so musical, that we can’t really call it just a rhythm machine. That’s why we called it a Rhythm Workstation.

THE WORKSTATION CONCEPT

Korg took the workstation concept and transplanted it to the rhythm machine. The result is the S3.

Conventional rhythm machines are capable only of playing sequences of rhythm sounds. The S3, however, allows control over all aspects of the rhythm—creating the sounds, playing them, and arranging them in the composition of a song. It also provides many sophisticated and creative functions.

In fact, with all the advanced features it has, it will forever change the narrow notion of what a rhythm machine is and what it ought to do. The S3 Rhythm Workstation is a revolutionary new rhythm machine that provides the power to control the entire music-making process.

Structure of the S3

**FUNCTION**
- **SYNTHESIZE**
- **EFFECT**
- **SEQUENCE**
- **SYNCHRONIZE**

**MODE**
- **Instrument**
- **Global (System)**
- **Pattern / Song**
- **Global (MIDI)**
The operation of the S3 is made up of four main functions and eight modes, for under-
standability and ease of control.

<table>
<thead>
<tr>
<th>FUNCTION</th>
<th>MODE</th>
<th>PATTERN</th>
<th>PATTERN EDIT MODE</th>
<th>SONG</th>
<th>SONG EDIT MODE</th>
<th>INSTRUMENT</th>
<th>GLOBAL</th>
<th>SYSTEM MODE</th>
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</thead>
<tbody>
<tr>
<td>PATTERN</td>
<td>PLAY/REC</td>
<td>PATTERN EDIT</td>
<td>PLAY/REC</td>
<td>PLAY/REC</td>
<td>PLAY/REC</td>
<td>TIMBRE</td>
<td>MIDI</td>
<td>SYSTEM</td>
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<td>TIMBRE</td>
<td>MODE</td>
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<tr>
<td>KIT MODE</td>
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<td>MIDI MODE</td>
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<td>SYSTEM MODE</td>
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**CLEAR, REALISTIC SOUNDS**

The S3 Rhythm Workstation begins with the creation of high-quality sounds. That's why we installed the sophisticated SI (Sonic Integrity) System. It features percussion sounds of superior clarity and power—and it provides sound editing capabilities far beyond anything previously available in a rhythm machine. A full 75 high-quality PCM sound programs make up the sound source section of the S3, with a comprehensive set of parameters provided for editing the waveform data of these PCM sounds. Furthermore, up to two sounds can be layered and played from a single pad, and processed through a digital effects section. Bringing all these elements together within a single unit is the basic concept behind the SI System.

**S3 INTERNAL WAVEFORMS**

The S3 Rhythm Workstation is the first rhythm machine to be equipped with dual independent stereo effect devices. The full digital effect system provides 28 different programs, including reverb, equalizer, delay, chorus and flanger, as well as multiple effects such as delay plus reverb. Two effect types can be selected from these and combined in an effect program, which can then be stored to one of 16 internal memory spaces. The effect system not only has extensive editing capability, but it also lets you select the placement of each of the effects in the stereo image. The editing flexibility of the S3's effects allows you to get precisely the sound you want for every instrument and for each song.

**S3 EFFECT VARIATIONS**

<table>
<thead>
<tr>
<th>NO.</th>
<th>STEREO-TYPE EFFECTS</th>
<th>DUAL-TYPE EFFECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>HALL REVERB 1</td>
<td>DUAL EQUALIZER</td>
</tr>
<tr>
<td>02</td>
<td>HALL REVERB 2</td>
<td>DUAL ECHO</td>
</tr>
<tr>
<td>03</td>
<td>HALL REVERB 3</td>
<td>DELAY / HALL REVERB</td>
</tr>
<tr>
<td>04</td>
<td>ROOM REVERB 1</td>
<td>DELAY / ROOM REVERB</td>
</tr>
<tr>
<td>05</td>
<td>ROOM REVERB 2</td>
<td>DELAY / ECHO / DELAY</td>
</tr>
<tr>
<td>06</td>
<td>ROOM REVERB 3</td>
<td>DELAY / ECHO / DELAY</td>
</tr>
<tr>
<td>07</td>
<td>EARLY REFLECTION 1</td>
<td>DELAY / CHORUS</td>
</tr>
<tr>
<td>08</td>
<td>EARLY REFLECTION 2</td>
<td>DELAY / ECHO / FLANGER</td>
</tr>
<tr>
<td>09</td>
<td>EARLY REFLECTION 3</td>
<td>DELAY / PHASER</td>
</tr>
<tr>
<td>10</td>
<td>STEREO DELAY</td>
<td>DELAY / TAP DELAY</td>
</tr>
<tr>
<td>11</td>
<td>STEREO CHORUS</td>
<td>EQUALIZER / DELAY</td>
</tr>
<tr>
<td>12</td>
<td>STEREO FLANGER</td>
<td>EQUALIZER / CHORUS</td>
</tr>
<tr>
<td>13</td>
<td>STEREO PHASER</td>
<td>EQUALIZER / FLANGER</td>
</tr>
<tr>
<td>14</td>
<td>STEREO TREMOLO</td>
<td>EQUALIZER / TREMOLO</td>
</tr>
</tbody>
</table>

**Sophisticated Editing**

The snare drum sound of the S3, for example, is an intricate combination of two separate waveforms, each a single sonic element of the total sound. It includes an attack sound, the sound made at the instant the stick hits the drum sur-
face, the sound of the drum following the hit, and the sound of the sympathetic vibrations as the drum resonates. Since the waveform data can be combined and edited through the use of various synthesizer parameters, such as envelopes and the like, it is possible to make extraordinarily realistic snare drum sounds. Moreover, the S3 is capable of reproducing the subtle nuances of real drummers through various parameters, such as the tuning, balance, response and output of each sound. The S3 makes it possible to recreate the delicate changes in sound quality and slight differences in tone that occur when the drum is struck with varying velocity.

Additional waveform data can be loaded to the S3 from optional ROM cards. With the wide variety of high-quality waveforms to work with, and the exceptionally versatile editing functions included on the S3, you can create a wealth of original sounds never heard before. To give just one example, a unique bass drum sound could be made by combining the waveform data of the snare head attack with the sustain sound of the bass drum shell.

**Digital Effects**

When you need to have the perfect per-
ception sound, the S3 System delivers. The S3 Rhythm Workstation is the first rhythm machine to be equipped with dual independent stereo effect devices. The full digital effect system provides 28 different programs, including reverb, equalizer, delay, chorus and flanger, as well as multiple effects such as delay plus reverb. Two effect types can be selected from these and combined in an effect program, which can then be stored to one of 16 internal memory spaces. The effect system not only has extensive editing capability, but it also lets you select the placement of each of the effects in the stereo image. The editing flexibility of the S3’s effects allows you to get precisely the sound you want for every instrument and for each song.

**Sound Tracks**

In the 16-track version used by this guide, each track is a program containing all of the data entered for that track. Each track can have its own effect program, as well as its own time signature and tempo. Additionally, each track can have its own volume, pan, and send levels, allowing for precise control over the sound of each track. This advanced sequencer section can also be used as a eight-track MIDI sequencer by changing the track settings. Set up your synthesizers and tone generators with the S3, and you’ve got a complete multi-track recording system, not just a rhythm machine.

**More Sophisticated Functions**

The S3 Rhythm Workstation is also loaded with advanced features that help you create rhythm tracks with more of a human feel.

To start off with, all data in both pattern tracks and song tracks can be recorded at the high resolution of 192 PPO (1 = 1192 or 768 clicks per measure). The drum tracks can be set to units as small as 1/1024, and the timing of each track can be offset independently. This function makes it possible to recreate the feel of human drummers with techniques such as anticipating the end of the bar.

Moreover, a swing function makes it exceptionally easy to get a more natural swing feel than was previously possible with conventional step record-
ing and realtime recording. Of course, the S3 is equipped with a swing function that will reflect the recorded data to a specified timing resolution. When some of the beats you've recorded are too loud or too soft, you can use the velocity edit function to change the volume of the recorded data. Adding accents is easy as well. Through these sophisticated functions, the S3 effectively eliminates the mechanical feel of the conventional rhythm machine, and gives you the feel of a real, live drummer.

**Much More Than Just a Rhythm Machine**

The SMPTe Synchronization System

The SMPTe (Society of Motion Picture and Television Engineers) time code is a standard code used for the editing of film and video. It is commonly used to synchronize tape recorded material with film or video. With SMPTe, it is possible to synchronize the SMPTE Sync source, the S3 lets you take full advantage of this flexible synchronization system. Unlike with the use of FSK signals for tape sync, SMPTe makes it possible to start recording or playback at any point in a song and still maintain sound synchron-
ization. In this way the S3 can act as a central controller for your entire system. It also gives you operational conveniences such as the ability to instantly calculate the tempo depending on the song running time. Finally, and most importantly, it gives you broad creative potential and precise editing power—the power of exactly matching your sequenced and tape recorded music with video and film.

**Advanced S3 Based System Diagram**

A system based on the S3, where the S3 acts as the nucleus of a multitrack recording setup.

**Dual MIDI Ports**

The total music power of the S3 Rhythm Workstation is rounded out by its comprehensive MIDI functions. Since it comes with two inde-
pendent MIDI ports, you effectively get twice the instrument output power and twice as much control over your music setup. And because the MIDI ports are independent, you can system-
natically set up and distinguish your various external tone generators and MIDI equipment.

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natically set up and distinguish your various external tone generators and MIDI equipment.
UNLIMITED SOUND SELECTION

If you need more PCM sounds, they’re available. In fact, there’s an ever-expanding library of high-quality PCM sounds. The KSC Series features sets composed of a PCM card and a Program card. The PCM card provides the waveform—the basic sound building blocks—that is stored in internal memory. A single card can store up to 40 waveforms. The accompanying Program card has specially designed sound programs that use data on the companion PCM card. A wide selection of sounds are being readied for release, including more drum and percussion sounds as well as melodic instruments such as bass and vibraphone. Cards for instantly setting up a stereo drum kit are also in the making.

S3 REAR PANEL

1. MIDI OUT (A, B): Play data, clock and timing data, MTC (MIDI time code), and MIDI exclusive data is output through these terminals. A and B can be set independently. They can also be used as MIDI THRU terminals. 2. MIDI IN: For connection to MIDI OUT terminals of external MIDI instruments. 3. TIME CODE (IN, OUT): Input/output terminal for SMPTE time code signal. 4. FOOT SW (1, 2): For connection to footswitches for start/stop operation and to trigger assignable pads. 5. MULTI OUT (1, 2, 3, 4): For individual output connection with external audio mixers and recording equipment. 6. OUTPUT (R, L/MONO): For conventional stereo connection to audio equipment such as amplifiers and mixers. 7. PHONES: For headphones use. 8. DC 9V IN: For connection to the included AC adaptor. 9. POWER SW: Optional RAM cards and program cards are inserted here. 10. RAM card slot: Optional RAM cards and program cards are inserted here.

S3 OPTIONS

- HARD CASE HC-S3
- MULTI CASE LB-69
- HEADPHONES KH-1000
- SYNC/MIDI CABLE 1.5m/3m/5m/10m + 0.5m
- PCM PROGRAM CARD (KSC SERIES)
  KSC-1S STEREO DRUMS
  KSC-2S DANCE
  KSC-3S JAZZ
  KSC-4S INSTRUMENTS
- MEMORY CARD RAM MCR-03

The optional S3 memory RAM card can memorize and store sound program data such as timbre, key, sequence data, and global data of MIDI settings and system structures.

S3 SPECIFICATIONS

- TONE GENERATION METHOD: SI System (Sonic Integrity System)
- PADS: 8 pads with touch sensitivity
- QUANTIZATION: 16 bit
- EFFECTS: Independent dual system stereo multi-effects
- WAVEFORMS: 75
- TIMBRES: 160 (80 presets, 80 user programs)
- SEQUENCER: Maximum 30 songs, 100 patterns, 8 tracks (4 pattern tracks, 4 song tracks) resolution J = 1/192, tempo range J = 40 – 250
- EXTERNAL SYNCHRONIZATION: MIDI, SMPTE time code (30, 29.97, 25, 24 non-drop frame)
- CONTROL INPUTS: Assignable foot switch x 2
- OUTPUTS: R, L/MONO, Multitout x 4, Headphones
- CARD SLOTS: ROM slot x 2, RAM slot x 1
- MIDI IN x 1, OUT (switchable to MIDI THRU) x 2
- DISPLAY: Backlit LCD (24 characters x 2 lines)
- DIMENSIONS: 348(W) x 337(D) x 57(H) mm
- WEIGHT: 2.6 kg

NOTICE

Korg products are manufactured under strict specifications and voltages required by each country. These products are warranted by the Korg distributor only in each country. Any Korg product not sold with a warranty card or carrying serial number disqualifies the product sold from the manufacture or distributor’s warranty and liability. This requirement is for your own protection and safety.

KORG

KORG INC., 15-12, Shimotsukai 1-chome,
Sugamo-ku, Tokyo, Japan.