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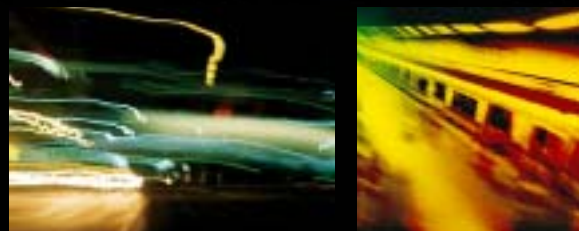
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# MUSIC PRODUCTION STUDIO



YAMAHA

MUSIC PRODUCTION STUDIO RS7000



**MUSIC PRODUCTION STUDIO**  
Integrated Sampling Sequencer

# RS7000

# From Inspiration to Final Mix, the RS7000 Gives You Complete Creative Control and Flexibility Every Step of the Way.

Introducing the RS7000 Music Production Studio, a fully integrated synthesizer/sampling workstation tailored to the needs of modern music producers. Combining the functions of a number of award-winning Yamaha products—the powerful sequencing capabilities of the RM1x sequencer, the realtime control capabilities of the SU700 desktop sampler, and the amazing Loop Remix and Slice functions of the A5000/4000 rackmount samplers—the RS7000 gives you everything you need to create contemporary music, from soulful R&B to cutting-edge techno, with the uncompromising sound quality you've come to expect from Yamaha.

## A Powerful Sequencer, Synthesizer, and Sampler in One!

### Comprehensive Sequencing

- Intuitive **Pattern**, **Pattern Chain**, and **Song** recording modes make it easy to sequence and arrange songs.
- Nearly **6,000 preset phrases** for you to use as a basis for original songs.
- **1,024 user patterns** (64 styles each with **16 sections**).
- Powerful 16-track sequencer with approx. 259,000 notes and 480-ppq resolution.
- Track program change events make it possible to use an unlimited number of instruments in a song.

### Full-blown Synthesis

- Over **1,054 high-quality AWM2 voices** and **63 drum kits**.
- **16 multitimbral parts** with **62 notes of polyphony**.
- 4 simultaneous effects blocks: **Reverb** (12 types), **Delay/Chorus** (25 types), **Variation** (100 types), and **Master** (8 types).
- **Individual Track EQ** plus **Master EQ**.
- **6 LFO wave types** including a **Programmable LFO wave**—all syncable to MIDI clock.
- **6 filter types**, including 12dB/oct, 18dB/oct, and 24dB/oct low-pass, high-pass, band-pass, and band-eliminate.

### Advanced Sampling

- Internal sample **memory expandable up to 64 MB** for approx. 6 min. 20 sec. of stereo sampling time.
- Powerful sample edit functions, including **Slice** and **Loop Remix**.

### Plus...

- **Integrated Sampling Sequencer (ISS)** lets you sample audio directly into your sequence.
- **18 assignable control knobs** and **4 Master Effect knobs** for extensive realtime control.

#### ■ Master Effects Control

The Master Effect section lets you apply distortion, delays, sweeping filters, and isolation effects to your songs and patterns as they play back. There's even a Multi-band Compressor (an indispensable effect for mastering) and a Slice function that lets you alter the groove on the fly.

#### ■ Large Display with Intuitive Control Knobs

The RS7000's large backlit LCD panel displays a wealth of information in a simple, easy-to-understand layout. This, together with 4 conveniently located knobs and function buttons, makes it easy to edit the parameters of the voices, samples, and sequences.

#### ■ Arpeggio

Press this button to turn any chord you play into a simple arpeggiated phrase. Arpeggio data can be recorded into your sequence and even used to control external MIDI synthesizers.

#### ■ Scene and Mute Memory

Up to 5 complete Scene and Mute setups (snapshots of the current parameter settings) can be stored and recalled at the touch of a button. Recall operations can be recorded into pattern chains and songs. Song arrangement has never been easier!

#### ■ Multifunction Keys

These keys let you select and mute tracks and switch sections. When the Keyboard button is activated, however, they become a convenient 2-octave polyphonic MIDI keyboard that you can use to record chords and melody lines into your sequencer tracks.

#### ■ Real Time Loop Remix

Based on Yamaha's acclaimed Loop Remix function, Real Time Loop Remix divides and rearranges the MIDI data (as opposed to audio data in the case of Loop Remix) of a selected phrase to generate totally new and unique remixed phrases.

#### ■ Sequence Play FX

These assignable knobs allow you to control various effects and parameters for a selected track in realtime. You can record any changes you make into the sequencer for automated transformation of your tracks during playback.

#### ■ Effect Send/Volume

This section allows you to adjust the Delay/Chorus, Reverb and Variation effect levels and volume for each track.

#### ■ EG

The EG (Envelope Generator) section lets you adjust the attack, decay, sustain, and release time of a voice's pitch, volume, and filter.

#### ■ Powerful Resonant Filters

Yamaha synthesizers are known for their rich-sounding filters, and the RS7000 is no exception. It boasts 6 filter types, including high-pass, band-pass, band-elimination, and 12dB/oct, 18dB/oct, and 24dB/oct low-pass filters.

#### ■ LFO

LFO waves can be used to modulate the pitch, volume, or filter of a voice to produce effects such as vibrato, tremolo, or wah. The RS7000 provides 6 types of LFO waveforms, including a programmable LFO waveform that can be set by the user.

#### ■ Pitch

The Pitch knobs allow you to control the pitch and portamento time (the sliding speed from one pitch to another) of a voice in realtime.

#### ■ Grid Groove

The Grid Groove function allows you to change the rhythmic feel of your patterns and songs by varying note timing, gate time, and velocity on an easy-to-use grid. Tweaking can be performed in realtime, allowing you to hear the changes in the groove as your pattern plays back.

#### ■ Mode & Sub Mode Buttons

These buttons give you quick and easy access to the RS7000's main and sub modes.



# The Flexible Control of MIDI, the Creative Freedom of Audio — the RS7000's Integrated Sampling Sequencer Gives You the Best of Both Worlds.



The RS7000 bridges the gap between MIDI sequencing and audio recording with its Integrated Sampling Sequencer (ISS). In addition to Pitch and Kit sampling modes, which function just like sampling on a conventional sampler, the RS7000 offers two additional sampling modes never before available in a hardware sampler. These include...

## KIT + NOTE: Simultaneous Sampling and Sequencing of Audio Phrases

This sampling mode lets you record audio directly into your sequence at any point—just like recording on a multitrack hard disk recording system. While listening to your sequenced tracks play back, simply record your audio part—a vocal phrase, a guitar lick, an acoustic drum...anything you'd like—the RS7000 will automatically place a MIDI note directly into the sequence so that the sampled phrase plays back at the appropriate time. Imagine—no more having to manually map your samples to the keyboard and enter them into your sequence at a later time. This function eliminates all the tedious in-between steps, allowing you to concentrate on making music.

## SLICE + SEQ: A New Dimension in Sample-Based Sequencing

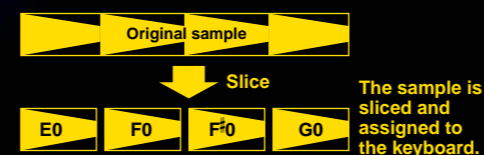
As with KIT + NOTE, this mode lets you record audio right into your sequence in one easy step. Yet, instead of simply triggering the sample with a single MIDI note-on message, the RS7000 analyzes the entire audio signal and slices it according to peaks and beat divisions. It then assigns a MIDI note to each of the slices and generates an extremely accurate MIDI sequence to retrigger them in the proper order. During the Slice process, the RS7000 re-synthesizes the tail end of each slice to ensure that the sampled phrase plays back smoothly and naturally, even if you slow down or speed up the tempo of the sequence. This function is especially effective for drum loops and other rhythmic phrases. When applied to a break-beat phrase, for example, every kick, snare, and hi-hat, etc. will exist as an individual note in your sequence. This allows you to apply MIDI editing functions such as groove, velocity, and gate changes to your audio tracks, giving you a level of control not possible with traditional sample-based sequencers.

## "Play" Each Slice on the Keyboard to Create New Remixed Phrases

In addition to recording your audio phrase directly into a sequencer track, SLICE + SEQ mode maps each of the audio slices to the RS7000's keyboard, allowing you to play each division as an individual sample. By playing different combinations of keys manually into a sequencer track, you can create an unlimited number of breaks, fills, and pattern variations.

## A Closer Look at the Integrated Sampling Sequencing Process Sampling with SLICE + SEQ

SLICE + SEQ divides the sampled audio phrase into sections. Each section is automatically assigned a MIDI note and mapped to the keyboard.



At the same time, the MIDI notes used to trigger the audio slices are recorded into the selected sequencer track.



Because each of the slices is controlled by a MIDI note, you can apply MIDI editing functions (such as velocity, gate, and clock changes) directly to the audio phrase.

The RS7000's Grid Groove function gives you precision control over the feel of your MIDI tracks by allowing you to alter the pitch, clock, gate time, and velocity of groups of MIDI notes divided into sixteenth-note segments. Use Clock Shift to give your track a swinging feel, Gate Offset to give it a choppy feel, or Velocity Offset to accent certain beats. You can obtain particularly interesting results by using Note Offset on a drum loop, which will replace the selected sections with different drum sounds. Best of all, you can tweak these values while the sequencer is running and hear the results in realtime. You can even record the changes into the sequencer track!

## Tweak Your Groove Just the Way You Want it

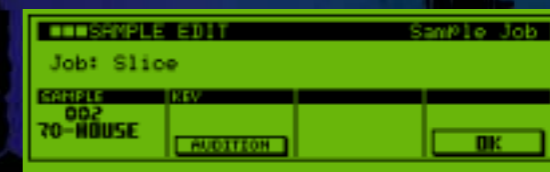
### Advanced Groove Making: Using Grid Groove with Sliced Sample Loops

Because samples that have been processed with the Slice function (or recorded using SLICE + SEQ) have MIDI notes assigned to each division, they too can be used with the Grid Groove function. This ability to alter the groove of sampled phrases makes the RS7000 stand out as a powerful groove-making tool for modern music production. Here we will show you how to slice a sample loop and tweak the feel using Grid Groove.

1. Press the Sample Edit button three times to access the Sample Job List page. Then select Slice from the Job List.



2. Use the leftmost knob below the LCD screen to choose the sample you want to slice. Then press OK (F4).



3. Once the Slice command has completed, the segments will be assigned to the RS7000's keyboard. Press Create (F3) to save your newly sliced phrase.

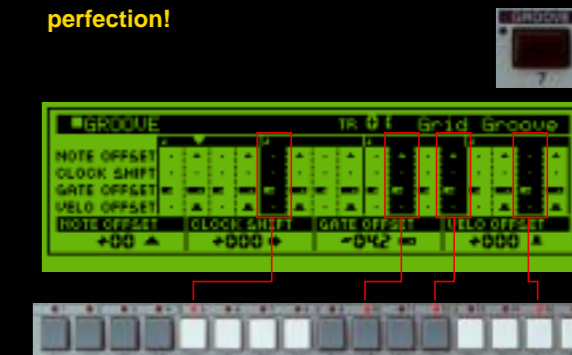
A visual representation of the sample will appear, showing the currently selected slice values. Use the knobs below the LCD screen to set the slice parameters according to the length of the sample and the number of divisions you want. Then press DO! (F4).



## And now the fun begins...

Select the track with the sliced phrase and start the sequencer. Then press the Groove button in the Sub Mode section to access the Grid Groove function.

4. A grid will appear in the display showing a measure divided into 16 sections. Use the keys at the bottom of the RS7000 to select the section(s) whose value you want to change. Then use the knobs below the LCD screen to change the appropriate parameters. Try changing the parameter values of various sections until you've shaped the groove to perfection!



# Audio Samples, Music Styles and Software Included!

## Everything you need to get started.



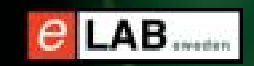
Right out of the box, the RS7000 is ready for you to start making music—with a CD-ROM and SmartMedia™ card packed with music style data that you can freely use in your original songs. This CD-ROM also contains hundreds of audio samples, from drum loops to sound effects, as well as editing software that lets you edit the samples right on your Mac or PC.

### SmartMedia™ card

An 8MB SmartMedia™ card is included with the RS7000, which contains nearly 60 music styles ranging from techno, house, funk, and ambient to hip hop and R&B. Two of the styles contain sample data in addition to MIDI data.

### CD-ROM

The bundled CD-ROM is packed with cutting-edge audio samples, including dance loops, drum kits, acoustic and electronic instrument riffs, and more! Many of the tracks were produced by e-LAB, Sweden's world-renown dance loop maker, and cover the entire dance music spectrum, from hard driving break beats to chilled out ambient vibes. The CD-ROM also contains style data (MIDI + Sample) of various dance genres, from R&B to techno.



**Address:** e-LAB, BYGGMASTAREGATAN 5, 276 30 BORRBY, SWEDEN  
**Phone:** Int +46-411-52 12 02  
**Fax:** Int +46-411-52 10 20  
**Home Page:** <www.e-lab.se>  
**Email:** info@e-lab.se

### TWE Wave Editor



Yamaha's TWE wave editing software, included on the CD-ROM, lets you edit any audio samples recorded with the RS7000 with precision accuracy on your computer.

Using a SmartMedia™ card or other removable storage device such as a Zip™ drive, simply import the samples you want to edit and use TWE's comprehensive editing functions to alter and enhance them to your liking. Then bring the new audio back into the RS7000 and mix it in with your MIDI tracks.

### Style List

#### SmartMedia™ card

| Style# | Style Name       | BPM   | Data Type   | Style# | Style Name       | BPM   | Data Type |
|--------|------------------|-------|-------------|--------|------------------|-------|-----------|
| 1      | BRK TRANCE audio | 140.0 | MIDI+Sample | 20     | D&B CYBER        | 176.0 | MIDI      |
| 2      | BREAKTEK         | 120.0 | MIDI        | 21     | BROKEN BEATS     | 125.0 | MIDI      |
| 3      | INDUSTRIAL ROCK  | 115.0 | MIDI        | 22     | DOWNBEAT         | 96.0  | MIDI      |
| 4      | BIG BEAT 1       | 126.0 | MIDI        | 23     | AMBIENT PSYCHE 1 | 93.0  | MIDI      |
| 5      | BIG BEAT 2       | 128.0 | MIDI        | 24     | CHILL OUT        | 80.0  | MIDI      |
| 6      | BIG BEAT 3       | 142.0 | MIDI        | 25     | TRIBAL           | 135.0 | MIDI      |
| 7      | TRANCE 1         | 137.0 | MIDI        | 26     | DUB REGGAE       | 145.0 | MIDI      |
| 8      | TRANCE 2         | 144.0 | MIDI        | 27     | ILLBIENT         | 98.0  | MIDI      |
| 9      | TRANCE 3         | 145.0 | MIDI        | 28     | NY AMBIENT       | 100.0 | MIDI      |
| 10     | MINIMAL 1        | 142.0 | MIDI        | 29     | GARAGE HOUSE     | 128.0 | MIDI      |
| 11     | ACID TECHNO      | 132.0 | MIDI        | 30     | 2STEP 1          | 130.0 | MIDI      |
| 12     | BERLIN TECHNO 1  | 135.0 | MIDI        | 31     | 2STEP 2          | 135.0 | MIDI      |
| 13     | BERLIN TECHNO 2  | 135.0 | MIDI        | 32     | PROGRESS HOUSE   | 132.0 | MIDI      |
| 14     | ELECTRO          | 130.0 | MIDI        | 33     | EURO HOUSE       | 37.0  | MIDI      |
| 15     | TECHNOLECTRO     | 134.0 | MIDI        | 34     | TRANCE HOUSE 1   | 135.0 | MIDI      |
| 16     | UK ELECTRO       | 132.0 | MIDI        | 35     | TRANCE HOUSE 2   | 140.0 | MIDI      |
| 17     | ELECTRO HOP      | 140.0 | MIDI        | 36     | DISCO 70         | 123.0 | MIDI      |
| 18     | D&B TEK          | 185.0 | MIDI        | 37     | DISCO GARAGE     | 130.0 | MIDI      |
| 19     | D&B ARTCORE      | 170.0 | MIDI        | 38     | FUNKY HOUSE      | 137.0 | MIDI      |

#### CD-ROM

| Style# | Style Name       | BPM   | Data Type   | Style# | Style Name       | BPM   | Data Type   |
|--------|------------------|-------|-------------|--------|------------------|-------|-------------|
| 1      | BIG BEAT 4 audio | 112.0 | MIDI+Sample | 39     | LATIN HOUSE      | 138.0 | MIDI        |
| 2      | BRK TRANCE audio | 140.0 | MIDI+Sample | 40     | INTELL HOP audio | 98.0  | MIDI+Sample |
| 3      | MINIMAL2 audio   | 139.0 | MIDI+Sample | 41     | FLIP HOP 1       | 128.0 | MIDI        |
| 4      | EURO BEAT audio  | 137.0 | MIDI+Sample | 42     | FLIP HOP 2       | 130.0 | MIDI        |
| 5      | DREAMDANCE audio | 136.0 | MIDI+Sample | 43     | FUNKY HIP HOP    | 96.0  | MIDI        |
| 6      | AMB HOUSE audio  | 138.0 | MIDI+Sample | 44     | GANGSTA          | 94.0  | MIDI        |
| 7      | IBIZA audio      | 135.0 | MIDI+Sample | 45     | G-OLDSKOOL       | 98.0  | MIDI        |
| 8      | AMB PSYCH2 audio | 96.0  | MIDI+Sample | 46     | OLD SKOOL        | 102.0 | MIDI        |
| 9      | FLIP HOP 3 audio | 134.0 | MIDI+Sample | 47     | RAGGA HIP 1      | 74.0  | MIDI        |
| 10     | MAD HOP audio    | 102.0 | MIDI+Sample | 48     | RAGGA HIP 2      | 87.0  | MIDI        |
| 11     | INTELL HOP audio | 98.0  | MIDI+Sample | 49     | R&B SMOOTH       | 64.0  | MIDI        |
| 12     | FUNK R&B audio   | 98.0  | MIDI+Sample | 50     | R&B 90           | 94.0  | MIDI        |
|        |                  |       |             | 51     | SLIP HOP         | 110.0 | MIDI        |
|        |                  |       |             | 52     | TRIP HOP         | 87.0  | MIDI        |
|        |                  |       |             | 53     | HIP HOP JAZZ     | 72.0  | MIDI        |
|        |                  |       |             | 54     | CLUB JAZZ        | 94.0  | MIDI        |
|        |                  |       |             | 55     | JAZZ FUNK        | 108.0 | MIDI        |
|        |                  |       |             | 56     | FUNK 70          | 104.0 | MIDI        |

Integrated Sampling Sequencer



# Inspiration at the Touch of a Button!

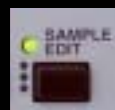
## The Loop Remix Function Lets You Create Endless Variations of Your Sample and MIDI Phrases.

**It Slices, It Dices... It Makes Tasty Loops and Grooves.**

Loop Remix, the revolutionary sample editing function that originated in Yamaha's professional "A" Series samplers, has been fully integrated into the RS7000 to give you a music production workstation with unprecedented remix capabilities. This function cuts up a sampled audio phrase into a number of sections, or "slices," and randomly rearranges them to create fresh new breaks and rhythms. Depending on the Loop Remix type used, some slices are also processed with reverse effects for even greater remix possibilities. At the touch of a button, you'll be able to instantly create radical variations of your original loop, from funky break-beat fill-ins and hip-hop patterns to totally bizarre electronic grooves.

### Using Loop Remix

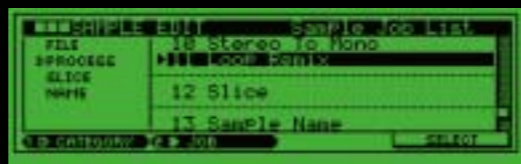
**1. Select the sample you want to remix in the Voice Select menu (1- or 2-measure drum loops will give you the best results). Then press the Sample Edit button to open the Overview Trim menu. Set the start and end points of your sample if necessary.**



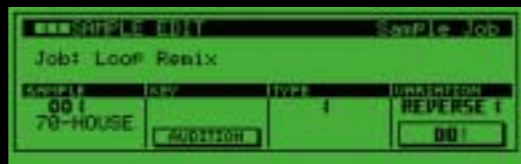
**2. Press the Sample Edit button again. Set the Play mode of your sample to Loop if it is not already.**



**3. Press the Sample Edit button a third time. Choose Loop Remix from the Job List and press the Select (F4) button.**



**4. Use the knobs below the LCD screen to select the Remix Type and Variation. Each press of the DO! (F4) button creates a new remixed variation of your original sample. Press the Audition (F2) button to preview the remixed loop. If you want to save it, just press the Create (F3) button.**

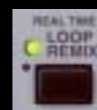


## Real Time Loop Remix...or "It's Not Just for Audio Anymore."

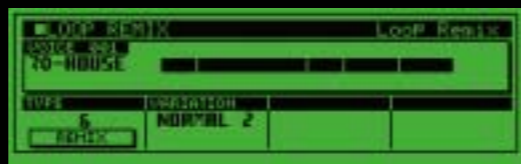
Unlike the original Loop Remix function, which divides and rearranges audio data, Real Time Loop Remix rearranges the MIDI data of a given track to create new pattern variations. Now you can remix your sequenced drums and synthesizer tracks, too! And since this function can be performed in realtime, you can try out different remix variations of a track as your sequence plays back. This function can also be applied to any audio phrases that have been processed with the Slice function or recorded using SLICE + SEQ.

### How it works:

**Select the track that you want to remix. While the sequence is playing, press the Real Time Loop Remix button.**



**Use the knobs below the LCD screen to set the Remix Type and Variation. Then press the Remix (F1) button to preview the remixed track. Press the Create (F4) button to apply the remix to your track, or press the Remix button again to hear another remix variation.**



# Take Control of Your MIDI Tracks with Sequence Play FX

Sequence Play FX gives you realtime control over sequenced MIDI parameters such as velocity, gate time, and clock—parameters that, until now, were accessible only through MIDI event editing menus. At the twist of a control knob, you can apply these effects to any of your recorded MIDI tracks as well as to any audio tracks that have been recorded or processed with the Slice function. Parameter changes can be recorded into the sequencer for fully automated playback. Below are some examples of the MIDI effects you can achieve using these knobs.

### Stretch the Beat

Beat Stretch shortens or lengthens the phrase according to a preset percentage ranging from 25% to 400%. Use this function to change a quarter-note hi-hat into a rapid sixteenth-note pattern. Or try applying it to a bass phrase to generate patterns with a totally different feel.

### Shift the Clock

This function shifts the timing of the notes in a phrase forward or backward, allowing you to tweak subtle aspects of a pattern's groove. For example, you can slightly delay the timing of a snare drum track to give your pattern a laidback feel, or experiment with higher values to come up new and interesting results.

### Add Some Swing

The Swing function delays the timing of the even-numbered eighth notes in a phrase. Set positive values to add a forward driving feel to your phrase, and negative values to achieve a laidback feel.

### From Staccato to Sustain and back

The Gate Time setting alters the sustain times of the notes according to a specified percentage. Use this function to transform a long sustaining bass line into a sharp spiked bass, for example.

### Pump up the Volume

...or turn it down to a whisper. The Velocity Offset function lets you independently adjust the volume of each of your sequenced tracks. This function uses MIDI note velocity to control the volume of the track instrument and thus is independent from the Track Volume in the Effects Send/Volume section.

### Create Harmony

The Harmonize function lets you assign 2 parallel harmony lines to any of your MIDI tracks. There's also a Unison setting that duplicates the MIDI notes of a track (up to 8 times) to thicken up the sound, and an Octaver that doubles the MIDI notes of a phrase up to 10 octaves above or below the original notes.

*Note: The Sequence Play FX knobs can be assigned to control virtually any function or parameter. By default, however, they are set to control specific parameters.*

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# Expansion and Connection

Equipped with a variety of ports, slots and connectors, the RS7000 is ready to expand as your needs grow.



## SmartMedia™ Card Storage

Conveniently save all your projects and samples onto high-capacity SmartMedia™ flash memory cards. This storage medium also makes it easy to transfer samples to and from your computer.



## Expandable Sample Memory

The RS7000 comes equipped with 4MB of memory and can be easily expanded with pairs of standard PC SIMMs. Fully expanded, the RS7000 allows up to approx. 6 min. 20 sec. of stereo sampling time at a frequency of 44.1 kHz.

## AIEB2 I/O Expansion Board

The optional AIEB2 I/O Expansion Board provides optical and coaxial terminals for direct digital input and output. Using these connectors, digital signal input can be recorded. This expansion board also gives you 6 assignable analog outputs in addition to the standard stereo outputs.



## SCSI Connector

External SCSI devices, such as a high-capacity hard drive or a Zip™ drive, can be connected to the RS7000's SCSI for quick and easy storage and retrieval of audio and sequencer data. A CD-ROM drive can also be connected for direct loading of sample data from sampling CD-ROMs.



## MIDI OUT A and B

The RS7000 provides two discrete MIDI OUT ports allowing you to control up to 32 MIDI OUT channels. The MIDI setup menu lets you configure the MIDI output, channel assignment and filter settings.



## Rear Panel

Shown with optional AIEB2 I/O Expansion Board.



# Specifications

### Sequencer Section

|                       |   |   |
|-----------------------|---|---|
| Maximum Note Capacity | Approx. 259,000 notes   |   |
| Note Resolution       | 480 ppq   |   |
| Maximum Polyphony     | 124 notes   |   |
| BPM (Tempo)           | 1.0 – 300.0   |   |
| Record Modes          | Real time replace, Real time overdub (Pattern and Song modes only)<br>Real time punch (Song mode only)<br>Step (Pattern and Song modes only)<br>Grid Step (Pattern and Song modes only) |   |
| Tracks                | Pattern Mode  | 16 phrase tracks  |
|                       | Pattern Chain Mode  | Pattern track<br>BPM track<br>Scene/Mute track<br>16 sequence tracks<br>BPM track<br>Scene/Mute track |
| Song Mode             | Patterns  | Patterns 1,024 (64 styles X 16 sections)<br>Measures 256 maximum                                      |
|                       | Phrases   | Preset phrases 5,980<br>User phrases 256 per style  |
| Pattern Chains        | 20 chains   |   |
| Songs                 | 20 songs  |   |
| Edit                  | Phrase edit, Pattern Chain edit, Song edit  |   |
| Jobs                  | Pattern jobs  | 37  |
|                       | Pattern Chain jobs  | 9   |
|                       | Song jobs   | 30  |
| Grid Groove           | Note Offset, Clock Shift, Gate Time Offset, Velocity Offset   |   |
| Play Effects          | Harmonize   | Unison, Octaver, Harmonize 1 & 2  |
|                       | Note  | Note Offset, Gate Time, Velocity Offset   |
|                       | Timing  | Beat Stretch, Clock Shift, Swing  |
| MIDI Delay            | MIDI Delay edit, Feedback edit  |   |
| Arpeggio              | Type (Up, Down, Alternate 1 & 2, Random), Sort, Hold, Octave Range  |   |
| Real Time Loop Remix  | RS7000 original sequence format   |   |
| Sequence Format       | SMF format 0, 1 (Format 1 load only)<br>RM1x format (PATT, SONG) (load only)  |   |

### Tone generator block

|                          |  |                                 |
|--------------------------|--|---------------------------------|
| Type                     | AWM2 tone generator                        |                                 |
| Maximum Polyphony        | 62 notes                                   |                                 |
| Multi-timbral Capability | 16 timbres (with Dynamic Voice Allocation) |                                 |
| Preset Voices            | Normal voices                              | 1,054 (not including GM voices) |
|                          | Drum voices                                | 63 kits (not including GM kits) |
| Effects                  | 4 systems                                  |                                 |
|                          | Reverb                                     | 12 types                        |
|                          | Delay Chorus                               | 25 types                        |
|                          | Variation                                  | 100 types                       |
|                          | Master                                     | 8 types                         |
| Equalizer                | Master equalizer                           | 4 band parametric equalizer     |
|                          | Track equalizer                            | 5 types                         |

### Tone Generator Section

|                        |   |  |
|------------------------|---|--|
| Sample Voice Types     | Pitched Voice, Sample Kit Voice   |  |
| Maximum Samples        | 256   |  |
| Sampling Source        | Analog inputs L/R, Stereo outputs L/R,<br>Digital I/O (When optional AIEB2 I/O Expansion Board installed),<br>Optical I/O (When optional AIEB2 I/O Expansion Board installed) |  |
| A/D Conversion         | 20-bit, 64 X oversampling   |  |
| D/A Conversion         | 24-bit, 128 X oversampling  |  |
| Sampling Modes         | Slice + Sequence, Kit, Kit + Note, Pitch  |  |
| Sample Data Bits       | 16  |  |
| Sampling Frequencies   | 44.1 kHz (mono/stereo), 22.05 kHz, 11.025 kHz, 5.5125 kHz (LO-FI mode, mono/stereo)   |  |
|                        | * Sampling frequencies of 48kHz, 44.1kHz, and 32kHz can be input digitally when the AIEB2 is installed.   |  |
| Internal Sample Memory | Standard  | 4 megabytes (onboard)  |
|                        | Maximum   | 64 megabytes (32 megabyte SIMMs X 2)<br>Note: 4 onboard megabytes unavailable after maximum expansion. |
| Sampling Time          | Max. Sample Length  | 32 megabytes mono<br>64 megabytes stereo   |
|                        | Max. Sample Time (mono or stereo)   | Approx. 6 min. 20 sec. (44.1 kHz)  |
| Sample Format          | Original format   | AIFF (load only), WAV (save and load)<br>A3000/4000/5000, SU700 (load only)                            |
|                        | Sampling Jobs   | 13   |
| Display (LCD)          | 64 X 240 dot graphic LCD with backlighting and contrast control   |  |
| Connectors             | PHONES (Standard stereo phone jack)   |  |
|                        | OUTPUT (Standard phone jack X 2) (L/MONO, R)  |  |
|                        | INPUT (Standard phone jack X 2) (L, R)  |  |
|                        | FOOT SWITCH   |  |
|                        | MIDI IN, MIDI OUT (X 2, A & B)<br>CARD SLOT (3.3 V SmartMedia™ card)<br>SCSI (50-pin half-pitch)<br>AC INLET (AC power)   |  |
| Dimensions (W X D X H) | 440 mm X 363 mm X 134 mm  |  |
| Weight                 | 7 kg  |  |
| Supplied Accessories   | Power cord  |  |
|                        | CD-ROM (X 1)<br>SmartMedia™ card (8 MB X 1)<br>Owner's Manuals  |  |
| Options                | I/O Expansion Board: AIEB2  |  |
|                        | Expansion Memory (use a pair of identical SIMMs conforming to the specifications below)   |  |
|                        | Type  | 72-pin SIMM (Fast page or EDO, JEDEC Access Time: 70 ns or faster)                                     |
|                        | Capacity  | Parity or non-parity<br>4/8/16/32 megabytes  |

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