

# MUSIC PRODUCTION STUDIO Integrated Sampling Sequencer





## Seamless Integration of Synthesis, Sampling, and Sequencing for Modern Music Production

The Yamaha RS7000 brings it all together. Everything you need for professional-level music production — particularly in dance, techno, Hip Hop, R&B, and ambient genres — is included and flawlessly integrated in a system that has been specifically designed to facilitate modern production techniques. Delivering unique and powerful features— a combination of integrating loops and samples with MIDI, plus the real "hands on" feel of an intuitive interface—the RS7000 is a complete desktop studio that answers the needs of modern music production.

#### A new concept the Integrated Sampling Sequencer

Perhaps the most unique function of the RS7000 is the ability to seamlessly integrate audio and MIDI. The 4 MB of onboard sampling memory is expandable to 64 MB. Users can import samples from a variety of formats, sample sounds themselves from external sources, or even re-sample the internally sequenced sounds of the RS7000 itself to instantly create new audio loops and phrases. The Integrated Sampling Sequencer automatically breaks the samples into discrete parts (based on amplitude peaks), and generates a corresponding MIDI sequence. Audio beats of differing tempos can then be synchronized and processed using the same MIDI tools (such as Grid Groove) as any regular MIDI data, and the same filters and parameters as the internal synth voices.

#### Synthesis and On-Board Sounds

The RS7000 features a 62-voice AWM2 tone generator with over 1,000 onboard ROM-based synth voices and 63 drum kit sounds. There are six distinct types of filters, including phat resonant low pass, band pass, and hi pass — all controllable with a multi-stage envelope. Advanced LFO modulation capabilities included numerous BPM-synchronized waveforms plus a unique user programmable wave for creating your own unique BPM-synchronized effects. All edits to the sounds are stored as an integral part of the song and pattern data, so a virtually unlimited range of user sounds can be created.

### Radical Effects Processing Takes Your Sound a Step Further

On top of the three system effects, there is a separate Master effect section with a multi-band compressor, slice, Isolation, and other DJ-style master effects. These effects let you put the finishing touches on your RS7000 productions.

#### **SPECIFICATIONS**

SEQUENCER		
MEMORY CAPACITY		259,000 notes
TIMING RESOLUTION		1/480 quarter-note
POLYPHONY		Maximum 124 simultaneous notes
TEMPO	0 1	1-300
RECORDING METHODS	The second second	Real-time (Replace, Overdub, Punch-in), Step, Grid Step
TRACKS	PATTERN	16 Phrase tracks
	PATTERN CHAIN	Pattern track, BPM track, SCENE/MUTE track
	SONG	16 Sequencer tracks, BPM track, SCENE/MUTE track
PATTERN	USER PATTERN	1024 (64 styles x 16 sections)
PHRASE	PRESET PHRASE	5,980
	USER PHRASE	256 per style
PATTERN CHAIN	10-	20
SONG	-010 (EDIM	20
EDIT	ARPEN TJ	Phrase edit, Pattern chain edit, Song edit
GRID GROOVE		Note offset, Clock shift, Gate time offset, Velocity offset
PLAY EFFECT	CTION	Harmonize (Unison, Octavar, Harmonize1/2) Note (Note offset, Gatetime, Velocity offset) Timing (Beat stretch, Clock shift, Swing)
MIDI DELAY	-0-70E	MIDI delay edit, Feedback edit
ARPEGGIO		Type (Up, Down, Alternate1/2, Random), Sort, Hold, Octave range
LOOP REMIX	CAPS	Real-time
SEQUENCE FORMAT	TRACI	RS7000 format (load & save), RM1x format (load), SMF format 0 (load & save) / 1 (load)
TONE GENERATOR		
TONE GENERATION	(30)6	AWM2
POLYPHONY		Maximum 62 simultaneous notes
MULTI-TIMBLE		Maximum 16 timbles (last-note priority with element reserve, DVA)
PRESET VOICES		1054 normal voices, 63 drum-kit voices (excl. GM normal voices and drum-kit voices)
FILTER	ARREST	6 types (24dB / 18dB / 12dB Low-pass, Hi-pass, Band-pass. Band eliminate)

Specifications and appearance subject to change without notice.

#### Advanced MIDI Sequencing Capabilities

The MIDI sequencer offers both pattern-based recording with 16 sections of 16 tracks each, and a 259,000 notes linear sequencer. Real-time recording with input quantize, step recording and grid style recording methods are all available. After the data has been recorded you can apply advanced editing macros such as quantize and data thinning to refine your music. Once sections of a song have been fully developed in the Pattern Mode, different arrangements can be performed and auditioned in real time using the RS7000's dedicated section buttons. All pattern and section data can be easily converted to linear sequence song format for final tweaking. The RS7000 takes the MIDI sequencing capabilities first developed in the ground breaking RM1X to a whole new level.

### Real Time Hands On Control

The RS7000 has 18 assignable knobs and two pads for subtle or radical real time control over sounds, samples and MIDI sequences. The knobs can be assigned to control the sounds, modify playback of MIDI data using processes like MIDI delay, harmonize and beat stretch, or assigned to standard MIDI control change messages for controlling external devices. With the RS7000 real time performance of MIDI sequences becomes a brand new art form.



**Expansion Option** 

The YAMAHA AIEB2 adds six assignable audio outputs as well as both optical and coaxial In/Out.

Rear Panel

EFFECTS (4 blocks)		Reverb (12 types), Delay/Chorus (25 types), Variation (100 types), Master (8 types)
EQ	Master equalizer	4-band parametric equalizer
1	Track equalizer	5 types (Lo & Hi, 1-band parametric EQ, Boost6, Boost12, Boost18)
SAMPLER		
MAXIMUM SAMPLES	H	256 (Pitch / Kit Total)
SAMPLE VOICE TYPE	- \	Pitch, Kit
SAMPLING TYPE		Slice + Sequence, Kit, Kit + Note, Pitch, Pitch + Note
A/D CONVERSION	1	20bit 64 times oversampling
D/A CONVERSION	12	24bit 128 times oversampling
SAMPLING FREQUENCIES	Analog input	44.1kHz (Stereo / Mono), 22.05kHz, 11.025kHz, 5.5125kHz (LoFi Mode, Stereo / Mono)
	Digital input (only when AIEB2 I/O board is installed) 48kHz, 44.1kHz, 32kHz (stereo only)	
SAMPLING WAVE MEMORY	Standard	4MB (Installed on-board)
	Maximum	64MB (32MB SIMM x 2, The on-board 4MB are unused only if memory has been expanded to the maximum.)
SAMPLING TIME	Maximum sample length	32MB monaural, 64MB stereo
	Maximum sampling time	6 minutes 20sec (44.1kHz, Mono or Stereo)
SAMPLE FORMAT	Export	RS7000 format, WAV
	Import	RS7000 format, WAV, AIFF, YAMAHA A3000/4000/ 5000, YAMAHA SU700, AKAI S1000/3000
GENERAL		
DISPLAY	64 x 240 dots graphic LCD (with backlit)	
CONNECTORS	PHONES, OUTPUT (L/MONO, R), INPUT (L,R), MIDI IN, MIDI OUT x 2, FOOT SWITCH, SmartMedia™ (3.3V) Card Slot, SCSI (50-pin half pitch), AC INLET	
DIMENSIONS	440mm (W) x 363mm (D) x 134mm (H) (17-5/16" x 14-5/16" x 5-1/4")	
WEIGHT	7 kg (15.43 lbs)	
ACCESSORIES	Owner's Manual, CD-ROM, 8MB SmartMedia™	
OPTIONS	YAMAHA AIEB2 I/O Expansion Board 72-pin SIMM x 2 [Access time: 70 ns or less, Bit width: x 32 (non parity) or x 36 bit (parity) Fast Page or EDO, JEDEG Standard]	

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