Roland

MKS-50

POLYPHONIC SYNTHESIZER MODULE
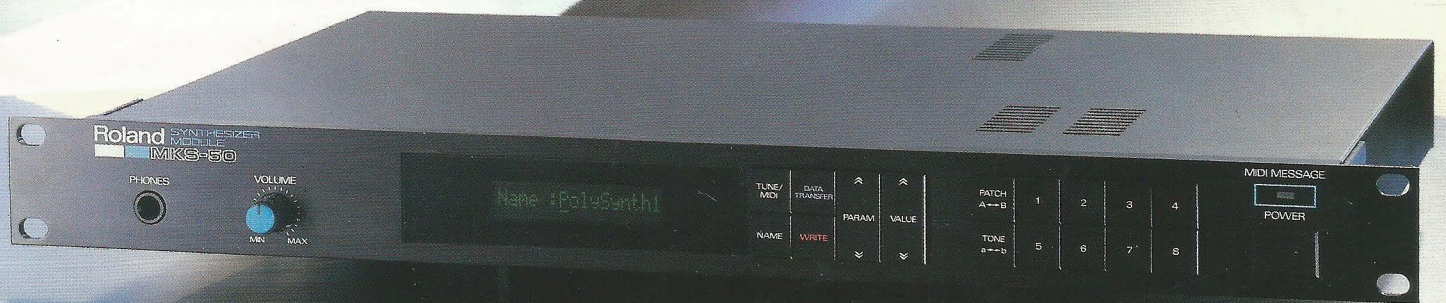
ELECTRONIC MUSICAL INSTRUMENTS

Roland's JUNO synthesizers have always attracted musicians of all levels, from the novice to the professional. Offering the popular "JUNO" sounds—distinctive analog sounds with comfortable warmth and depth—plus easy operation with the Alpha-Dial and programming ease, the new Alpha-JUNO synthesizers, are also gathering world-wide popularity.

In a single rack package, the MKS-50 polyphonic synthesizer module is packed with the same sound circuitry and functions as the Alpha-JUNO synthesizer.

### Six-Voice Polyphonic Sound Source & 128 Tones

The MKS-50 is a six-voice polyphonic synthesizer module and can store up to 128 programmable sounds. A variety of programmable parameters are provided for highly flexible sound synthesis. The MKS-50's DCO incorporates a newly developed LSI which can produce fourteen different basic waveforms, allowing the creation of sounds far beyond the scope of ordinary analog synthesizers in both variety and quality.

Fourteen basic waveforms of the MKS-50

	PULSE	SAW	SUB
0	OFF	OFF	
1			
2			
3			
4			
5			

The envelope generator is one of the most essential components for sound synthesis. The MKS-50 features an seven-parameter envelope generator. It can create more complex envelope curves than a conventional ADSR envelope generator, enabling the MKS-50 to produce much more expressive and impressive sounds.
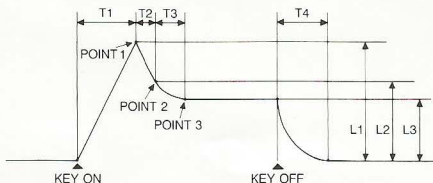
The MKS-50 features Roland's unique Chorus circuitry to broaden and thicken the synthesized sounds. You can freely create a wide variety of sounds using the controls on the MKS-50's front panel, confirming the parameter settings on an easy-to-read display. You can also connect an optional PG-300 programmer to the unit to facilitate the powers of sound synthesis. Once you've created a sound, you can store it in the unit's internal memory as a "Tone". The MKS-50 can store up to 128 tones. In addition, the tone name (up to ten characters) can be stored together with each tone.

●TONE PARAMETERS

DCO Range	32' to 4'
DCO LFO Modulation Depth	0 to 127
DCO ENV Modulation Depth	0 to 127
DCO ENV Modulation Mode	Normal/Inverted/Normal with Dynamics/Inverted with Dynamics
DCO Aftertouch Sensitivity	0 to 15
DCO Bend Range	0 to 12
DCO Pulse Waveform Selection	Off/⎍/⎍/⎍
DCO Sawtooth Waveform Selection	Off/⎍/⎍/⎍/⎍/⎍
DCO Sub-Oscillator Waveform Selection	⎍/⎍/⎍/⎍/⎍/⎍
DCO Sub-Oscillator Level	0 to 3
DCO Noise Level	0 to 3
DCO PW/PWM Depth	0 to 127
DCO PWM Rate	0 to 127

128 Patches

In addition to the 128 tones, the MKS-50 can store 128 "Patches." A variety of function settings listed below, as well as tone assignments can be stored as a single patch. Any of the stored 128 patches can be recalled by MIDI program change messages.

●PATCH FUNCTIONS

Volume	0 to 127
Modulation Sensitivity	0 to 127
Portamento	On/Off
Portamento Time	0 to 127
Key Shift	−12 to +12
Detune	−63 to +63

HPF Cutoff Frequency	0 to 3
VCF Cutoff Frequency	0 to 127
VCF Resonance	0 to 127
VCF ENV Modulation Depth	0 to 127
VCF ENV Modulation Mode	Normal/Inverted/Normal with Dynamics/Dynamics
VCF LFO Modulation Depth	0 to 127
VCF Keyboard Follow	0 to 15
VCF Aftertouch Sensitivity	0 to 15
VCA Level	0 to 127
VCA ENV Mode	ENV/Gate/ENV with Dynamics/Gate with Dynamics
VCA Aftertouch Sensitivity	0 to 15
Chorus	On/Off
Chorus Rate	0 to 127
LFO Rate	0 to 127
LFO Delay Time	0 to 127
ENV Time 1	0 to 127
ENV Level 1	0 to 127
ENV Time 2	0 to 127
ENV Level 2	0 to 127
ENV Time 3	0 to 127
ENV Level 3	0 to 127
ENV Time 4	0 to 127
ENV Keyboard Follow	0 to 15

P-A11 PolySynth1

LYPHONIC SYNTHESIZER MODULE

Key Range Low	C0 to C8
Key Range High	C8 to C0
MIDI Aftertouch	On/Off
MIDI Bender	On/Off
MIDI Exclusive	On/Off
MIDI Hold	On/Off
MIDI Modulation	On/Off
MIDI Volume	On/Off
MIDI Portamento	On/Off
Mono Bender Range	0 to 12
Chord Memory Number	1 to 16
Assign Mode	Poly/Mono/Chord Memory

Chord Memory Function

There is a Chord Memory function within the above-mentioned Patch functions. The Chord Memory function allows the MKS-50 to store a chord pattern that can be played by pressing a single key. The MKS-50 can store up to sixteen such chord patterns. You can create the chord pattern by assigning up to six notes within the range of two octaves below and above the note C4. This note assignment can be made from the controls on the front panel of the MKS-50 or by using a MIDI keyboard connected to the unit.

A built-in tape interface allows the data for the tones, patches, and chord patterns to be stored on cassette tapes.

MIDI

MIDI channel is assignable to any one of sixteen channels. The Receive mode can be freely set by selecting the Poly or Mono mode and Omni on or off. When the Omni off/Mono mode is selected, each of the six voices of the MKS-50 is controlled by MIDI messages transmitted on each of six successive MIDI channels (the MIDI channel assigned to the MKS-50 and the following five MIDI channels). This allows the guitarist to expressively control the MKS-50 using a MIDI-compatible guitar

controller such as a normal electric guitar with Roland's GK-1 Synthesizer Driver and the GM-70 GR-MIDI Converter, or Roland's G-series guitar controller with the GM-70. All subtle guitar techniques made on the guitar controller such as bending, vibrato, and sluring can completely control the synthesizer sounds produced by the MKS-50.

The MKS-50 can receive all MIDI note messages (0 to 127) and produce sounds within the note range corresponding to the MIDI note numbers 12 to 108. It also receives the MIDI volocity messages. You can set whether or not the MKS-50 receives the MIDI bender messages. The MKS-50 achieves the bending with a nine-bit resolution. The bend range is chromatically adjusted within one octave range. The MIDI control change messages the MKS-50 can receive include control change number 1 modulation, number 5 portamento time, number 7 volume, number 64 hold, number 65 portamento switch. You can determine whether or not the MKS-50 receives the control change message individually for the above control numbers and whether or not the MKS-50 receives the channel aftertouch message. The MKS-50 can also receive the MIDI registered parameter messages to chromatically adjust the bend range (0 to 24).

The MKS-50 receives the MIDI program change messages (0 to 127). It is also possible to set the MKS-50 not to receive the program change messages.

Furthermore, the MKS-50 can receive and transmit the system exclusive messages. When two MKS-50's are connected through MIDI, all the stored data for tones, patches, and chord patterns can be transferred between two units. And when the MKS-50 is connected with Roland Alpha-JUNO or Synth Plus 80, the data for the tones can be transferred. When the MIDI Exclusive of the Patch functions is turned

on, the MKS-50 transmits the system exclusive messages for the patch. If you use a sequencer capable of storing the system exclusive messages such as Roland's MC-500, the patch functions of the MKS-50 can be changed by the data stored in the sequencer.
The MKS-50 also receives the all note off and active sensing messages.

SPECIFICATIONS
- Memory: 128 Tones, 128 Patches, 16 Chords
- Jack: Headphones (8 to 150 Ω, Stereo)
- Control: Volume
- Display 16-digit, illuminated LCD
- Buttons: Tune/MIDI, Name, Data Transfer, Write, Patch, Tone, Number, Parameter, Value
- Switch: Power
- LED: MIDI Indicator
- Rear Panel: Output Jacks (Mono, Stereo), Tape Interface Jacks (Save, Load), MIDI Connectors (In, Out, Thru)
- Dimensions: 480(W) × 290(D) × 44(H) mm (18-7/8″ × 11-7/16″ × 1-3/4″), 19″ rack-mountable (EIA-1U)
- Weight: 3.5 kg (7 lb. 11 oz.)
- Accessory: MIDI Cable

REAR PANEL

PG-300 PROGRAMMER
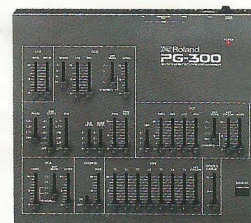
# Roland's MKS-Series MIDI Sound Source Modules

SUPER JX MKS-70 POLYPHONIC SYNTHESIZER MODULE

Extraordinary Creative Possibilities of the SUPER JX under the Control of MIDI

● 100 tones and sixty-four patches (thirty-one patch factors) ● Six key modes for a variety of splitting and layering ● External data storage using the M-64C memory cartridge ● Twelve-voice polyphonic and eighty-eight-note sound range ● Operable in MIDI omni off/mono mode
• Dimensions: 480 (W) × 400 (D) × 88 (H) mm (18-7/8″ × 15-3/4″ × 3-7/16″), EIA-2U
• Weight: 7.6 kg (16 lb. 12 oz.)

PG-800 PROGRAMMER
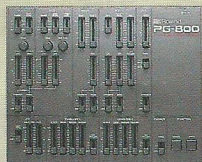
MKS-100 DIGITAL SAMPLER MODULE

A MIDI Sound Module that Adds the Digital Sampling Capability to Any MIDI Setup

● Superb sound quality equal to the S-series digital sampling keyboards ● Instantly-selectable four wave memory banks ● Velocity-responsive ● Split function ● Disk drive for 2.8″ Quick Disks ● Simple-to-operate auto-record and auto-loop functions ● Accepts sound library disks available for the S-10 digital sampling keyboard ● Operable in MIDI omni off/mono mode
• Dimensions: 483 (W) × 410 (D) × 90 (H) mm (19″ × 16-1/8″ × 3-9/16″), EIA-2U
• Weight: 7 kg (15 lb. 7 oz.)

MKS-20 DIGITAL PIANO MODULE

The RD-1000 Digital Piano in a Rack-Mountable Package

● Digital sound source incorporating Roland's proprietary S/A synthesis ● The same eight preset sounds, editing parameter, and memory capability as the RD-1000 ● Fifty-six edited sounds in internal memory and sixty-four sounds in the M-16C memory cartridge ● Alpha-dial and LCD for easy operation
• Dimensions: 480 (W) × 400 (D) × 90 (H) mm (18-7/8″ × 15-3/4″ × 3-9/16″), EIA-2U
• Weight: 8 kg (17 lb. 10 oz.)

SUPER JUPITER MKS-80
POLYPHONIC SYNTHESIZER MODULE

A Synthesizer Module offering the Legendary "JUPITER" Sounds

● Extremely warm, thick sounds produced by sixteen VCO's, eight VCF's, eight VCA's, and sixteen ENV's ● Velocity- and pressure-responsive ● Sixty-four tones and sixty-four patches in internal memory ● 128 tones and 128 patches in M-64C memory cartridge
• Dimensions: 482 (W) × 410 (D) × 90 (H) mm (19″ × 16-1/8″ × 3-9/16″), EIA-2U
• Weight: 8 kg (17 lb. 10 oz.)

SUPER JUPITER PROGRAMMER MPG-80

*Specifications and appearance subject to change without notice.