Roland®

Roland Synthesizers & Keyboards

☐ V-Synth ☐ Fantom-S/S88 ☐ RS-70/50 ☐ VariOS

Roland Synthesizers & Keyboards

Explore a World of New Sounds.

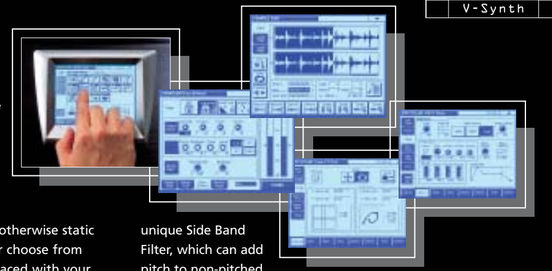
The Roland V-Synth™ is an expressive new instrument for those passionate about sound. It's the first synthesizer to offer multiple oscillator technologies with realtime control over a waveform's "time" aspect, as well as pitch and formant. Sounds can then be processed through new COSM® filters, a killer apreggiator and unrivaled physical realtime controllers including the TimeTrip Pad. Explore new musical landscapes with the V-Synth.

V-Synth COSM V-LINK VariPhrase USB

*VariPhrase technology for use under one or more of U.S. Pat. Nos. 6,421,642, 6,323,797, 6,201,175 and 6,207,885. U.S. Patent Pending

■**Structure Panel**
The V-Synth offers three structure types, which determine the signal flow of the dual oscillators, etc. Structures can be selected using the front-panel buttons.

■**Touchscreen Display**
The V-Synth's large LCD screen responds to touch and dragging motions—making it easy to set graphic parameters like envelope curves and filter response.



☐Intuitive sound editing with semi-modular structures

The V-Synth's vast sound engine can be configured in several different ways by choosing from three structure types. These structures define the signal flow including the routing of COSM processors. Dedicated buttons and diagrams make selecting a structure easy, while a host of knobs, buttons and sliders offer direct access to the most vital sound parameters. Careful consideration was given to each knob and slider, ensuring that sounds can be edited quickly and easily. More detailed parameters can be edited on the V-Synth's large touchscreen, which even responds to dragging motions. Imagine setting an envelope curve just by sliding your finger on the screen! With its direct programming interface, the V-Synth makes it easy to dive in and get the sounds you want.

☐New variable oscillators powered by VariPhrase™

At the heart of the V-Synth are two variable oscillators with a choice of three synthesis types: PCM, Analog Modeling and External Audio Processing. The PCM oscillator uses VariPhrase technology to bring new life to otherwise static waveforms. Sample your own waveforms or choose from hundreds of presets (which can also be replaced with your own), then independently manipulate pitch, time and formant. A world's first TimeTrip function lets you control the time aspect of a waveform in any way desired. Imagine the possibilities when "time" is controlled by an LFO, envelope, key velocity or your fingertip. Now PCM sounds can finally run free. Choose the Analog Modeling oscillator and you'll get nine fat-sounding analog waveforms beefed up for even more warmth and punch—it's like a vintage synthesizer for the future. Or process any external sound through V-Synth's incredible architecture by selecting the External Audio Processing type. No other synthesizer provides this degree of sonic control.

☐COSM processing for total sound shaping

Instead of typical multi-mode filters, the V-Synth features two dedicated COSM processors for warping sounds in entirely new ways. If you want traditional filters, they're there. But if you want to go beyond, simply select an algorithm like polyphonic guitar amp modeling or the unique Side Band Filter, which can add pitch to non-pitched sounds, enabling you to create rhythmic chords from a loop, for example. There's also a Wave Shaper, Resonator (polyphonic waveform processing through a modeled resonation body) and more. These tools radically alter any sound—including external audio—and take you beyond the capabilities of traditional synthesizers. The V-Synth's separate reverb, chorus and MFX handle all global effects processing.

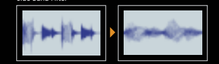
☐Sample your own waves, or import via USB

Any of the V-Synth's internal waveforms can be overwritten with user-sampled waves. First record a sample from the stereo analog input or the S/PDIF digital input. After editing, store it to the onboard Flash ROM (with the preloaded waveforms) and use it in the synth engine. The V-Synth's USB port also makes for a convenient way to import .WAV and AIFF files from a computer. You can even resample an effected sound or any performance played with the TimeTrip Pad, D Beam or arpeggiator.

■**Oscillator Panel**
Variable oscillators let you choose from three different sound generating techniques. These include enhanced analog modeling, external audio processing, and PCM synthesis with VariPhrase control.

■**COSM Processor Controls**
Sounds can be further shaped using two COSM processors. These include modeled multi-mode analog filters, plus other tools like a Wave Shaper and metallic Side Band Filter.

■**COSM Processing Examples**
Side Band Filter



Wave Shaper

Dynamic TVF

A Fresh, Organic Approach to Performance.

Add your own "touch" with the TimeTrip Pad

Roland's revolutionary TimeTrip Pad offers a degree of sonic control never before possible—giving you the ability to "touch" a waveform directly. Simply rub your finger along the pad in a clockwise or counter-clockwise motion to scan a waveform forwards or backwards in time—without changing pitch or formant. Slow a waveform down to uncover rich harmonic content, speed it up, or freeze it at any position—all with the touch of your finger. Imagine adding expressive phrasing to a lead vocal sample or manipulating a drum loop like a DJ without changing pitch. The TimeTrip Pad lets you create amazing new sounds and effects not possible in software.

■**TimeTrip Pad**
This innovative controller lets you adjust the time parameter of a waveform in real time—without affecting pitch or formant—simply by dragging your finger along the pad.

Futuristic Twin D Beams

For the ultimate in realtime control, check out the V-Synth's Twin D Beams. Using two infrared light beams, you can control a variety of preset and assignable controllers—or even play melodies—by moving your hand vertically and horizontally in the air. The Twin D Beams can be controlled independently or together to create some mind-blowing effects. Imagine controlling multiple parameters simultaneously. Your crowd will be amazed!

New programmable arpeggiator

The V-Synth's programmable arpeggiator makes it possible to instantly create backing chords or turn a few notes into a blazing techno sequence. You can even use the arpeggiator to control synthesis parameters like filter cutoff or envelope decay—just like a vintage step sequencer. Arpeggio settings are stored with each Patch, making it easy to recall hundreds of patterns in performance. It's another great tool for adding motion and life to sounds.

■**Programmable Arpeggiator**
Use the arpeggiator to create complex riffs from a single note or chord, or to create timbral changes that add rhythmic motion to a sound.

■**Twin D Beam**
Control a variety of effects and controllers using two infrared beams of light. Examples include oscillator pitch, LFO depth, TimeTrip and more.

*D Beam light has been colored for illustrative purposes only. Actual infrared light beam is invisible.

All the right connections

S/PDIF digital I/O: Connect a variety of digital gear using the V-Synth's S/PDIF I/O. These stereo connections support a wide range of sampling rates from 44.1kHz all the way up to 96kHz—making the V-Synth compatible with the latest professional audio gear.

Onboard USB: The V-Synth's USB port offers quick and easy file exchange with a Mac or PC. Use it to import and export .WAV/AIFF files with simple drag and drop commands (the V-Synth appears as a hard drive on your computer's desktop). It's also a great way to back up data to your hard drive.

PC card slot for more backup options: Back up your data quickly and conveniently to optional PC cards. By purchasing readily available PC card adapters, you can use other media like CompactFlash, SmartMedia and MicroDrives.

Groundbreaking V-LINK video control

V-LINK is another new approach to creative expression, allowing playback and even performance of video clips with music created on the V-Synth; all you need is the Edirol DV-7PR Digital Video Workstation (sold separately). Use V-LINK to trigger different video clips with V-Synth's keyboard while using the bender to change playback speed. Using the TimeTrip Pad, you can scan a clip forwards or backwards with your finger, or change colors using the Twin D Beams. And when paired up with the Edirol V-4 Video Mixer, you can control a variety of video effects like color and multiplying images on the fly. The future is now, and it's called V-LINK.

V-LINK
Roland's V-LINK makes it possible to control video clips when used with an Edirol DV-7PR Digital Video Workstation (sold separately).

*V-LINK requires the Edirol DV-7PR Digital Video Workstation (sold separately) with software version 1.50 or higher. To use the TimeTrip function with V-LINK, software version 2.0 or higher is required.

Specifications

■**Keyboard** 61 keys (with velocity and channel aftertouch) ■**Sound Generator Configuration** Oscillator (envelope x 4 + LFO x 1) x 2, Modulator x 1, COSM (envelope x 2 + LFO x 1) x 2, TVA (envelope x 1 + LFO x 1) x 1 ■**Methods by Which Oscillators Produce Sound** Analog Modeling, PCM / VariPhrase (Preset waveforms + Sampling waveforms), External Input ■**Modulator** 4 types + MIX ■**COSM** 15 types + THRU ■**Zones (Splits)** 16 ■**Parts** 16 ■**Maximum Polyphony** 24 voices (Varies depending on the load placed on the sound generator.) ■**Internal Memory** Project: 1, Patches: 512, Waves: 999, Wave memory (RAM): 50 MB (When the unit ships from the factory, 30 MB of this is taken up by the preset waves.), Sample storage memory (FLASH): 10 MB ■**External Storage Device** PC CARD slot (Microdrive, SmartMedia or CompactFlash can be used with PC card adapter) ■**Effects** MFX (Multi-effects): 41 sets, Chorus: 8 sets, Reverb: 10 sets ■**System EQ** 4 bands ■**Sampling Frequency** Internal: 44.1 kHz, Digital Audio IN/OUT: 96, 48, 44.1 kHz ■**Signal Processing** Internal processing, sound generating section: 32 bits (floating point), effects section: 24 bits (fixed point), DA Conversion: 24 bits, AD Conversion: 24 bits ■**Nominal Output Level** MAIN OUT: +4 dBu, DIRECT OUT: +4 dBu ■**Nominal Input Level** INPUT (LINE): -20 dBu, INPUT (MIC): -46 dBu ■**Arpeggiator** Patterns: User programmable (supports use of control change messages), Motifs: 8 types, Tempo: 20 to 250 BPM ■**Display** Graphic 320 x 240 dot backlit LCD with touchscreen ■**Controllers** Pitch Bend / Modulation Lever, TimeTrip Pad, D Beam Controller (Twin Beam), Assignable Control Knobs (C1, C2) ■**Connectors** Headphones Jack, Main Output Jacks (L/MONO, R) (1/4 inch phone type), Direct Output Jacks (L, R) (1/4 inch phone type), Input Jacks (L, R) (1/4 inch phone type) (equipped with line/mic gain switch), Hold Pedal Jack, Control Pedal Jacks (1, 2) (assignable), MIDI Connectors (IN, OUT, THRU), USB Connector, Digital Audio Interface (24-bit, S/PDIF) (COAXIAL (IN, OUT), OPTICAL (IN, OUT)), AC Inlet ■**Power Supply** AC 117 V, AC 230 V, AC 240 V ■**Power Consumption** 16 W ■**Dimensions** 1,056 (W) x 398 (D) x 111 (H) mm, 41-5/8 (W) x 15-11/16 (D) x 4-3/8 (H) inches ■**Weight** 13.1 kg, 28 lbs 15 oz ■**Accessories** Quick Start, Owner's Manual, Sound List, CD-ROM (Driver), PC CARD Protector, Power Cable ■**Options** Keyboard Stand: KS-12, Pedal Switch: DP-2, Damper Pedal: DP-6/8, Foot Switch: BOSS FS-5U, Dynamic Microphone: DR-20, Expression Pedal: EV-5 / BOSS FV-300L (0 dBu = 0.775 Vrms)

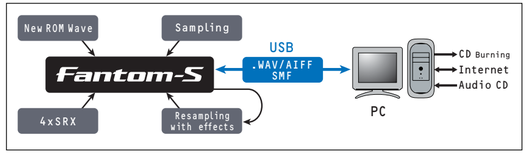
The Perfect Marriage of Sampling and Synthesis.

The Fantom-S Series is more than just a workstation with sampling. It's a complete solution for professional music production. With seamless integration of audio and MIDI, new "Skip Back Sampling," a Dynamic Pad Bank and USB, the 61-note Fantom-S and 88-note Fantom-S88 have everything to take your music from idea to completion.
The workstation has evolved into a digital studio, and it's called the Fantom-S Series.

*Skip Back Sampling function patent pending.

Fantom-S V-LINK COSM mini2 USB SmartMedia 3.3V

Fantom-S88 V-LINK COSM mini2 USB SmartMedia 3.3V



Whether you prefer working with audio, MIDI or both, Roland's new Fantom-S Series offers an elegant production environment with everything you need: expandable stereo 4-Tone synthesis, user sampling, a powerful arpeggiator and sequencer, resampling capabilities, USB file transfer and more.

☐ Fresh sounds for your next hit

Roland keyboards are known for great sounds, and the Fantom-S Series is no exception. Both models feature a brand-new 64MB wave ROM with hundreds of stereo-sampled waveforms and an entirely new set of Patches and Rhythm Sets. These sounds cover everything a modern composer needs and have been expertly programmed for maximum expression. Try the acoustic piano Patches if you need proof!

☐ Complete audio/MIDI integration

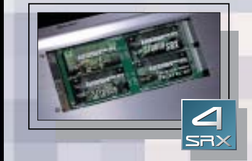
The idea behind the original Fantom was to keep the music flowing. So for the Fantom-S/-S88, a strong emphasis was placed on audio/MIDI integration. Audio can be sampled using the stereo analog inputs or imported via USB (.WAV/AIFF formats). It can then be integrated directly as a synth waveform or sequenced alongside MIDI tracks. And if you change tempo, the Fantom-S/-S88 will even timestretch your phrases automatically!

☐ Professional sampling and editing

When it comes to sampling, the Fantom-S Series is hard to beat. To start, both models feature a generous 32MB of sample memory, which can be expanded to a whopping 288MB*—enough space to resample an entire song! And editing samples is now easier than ever, thanks to a large 1/4 VGA display with full waveform editing and zoom capabilities.

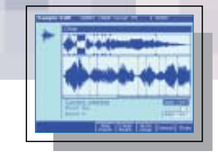
The Fantom-S/-S88 is also the first instrument to feature Roland's new Skip Back Sampling technology. This function continuously records your performances "behind-the-scenes" so you'll never lose a great idea. (The audio captured can be truncated based on musical beats.) Skip Back Sampling also makes for an easy way to resample any realtime knob and controller tweaks. And with 16MB of flash RAM and optional SmartMedia storage, saving your samples is ultra-convenient.

*Requires optional DIMM memory. 288MB possible only in "2x SRX Mode". When using four SRX expansions, sample memory can be expanded to 192MB maximum.



■Expansion Slot
With room for up to four SRX-Series Expansion Boards, the Fantom-S/-S88 can be customized to suit musical applications from orthestral sounds to dance music.

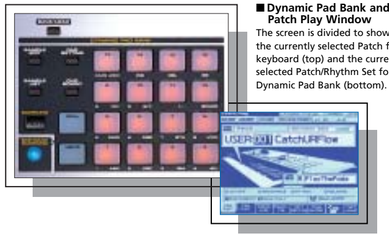
SRX-01-09
Wave Expansion Boards



■Sample Edit (Chop) Window
Sampled waveforms are displayed graphically for quick editing, and can even be automatically divided into 16 "slices" using the Chop function.

■User Programmable LFO
Similar to a Step Modulator, this function allows you to program cyclic modulation (such as filter cutoff, pitch, etc.) using 16 steps.

A Revolutionary Workstation with Dynamic Pads, USB, V-LINK and More.



■**Dynamic Pad Bank and Patch Play Window**
The screen is divided to show you the currently selected Patch for the keyboard (top) and the currently selected Patch/Rhythm Set for the Dynamic Pad Bank (bottom).

☐New Dynamic Pad Bank

One of the Fantom-S/-S88's coolest features is the Dynamic Pad Bank, with 16 velocity- and aftertouch-sensitive pads for programming drums and triggering phrases. These pads not only feel great, but they also make sequencing drum patterns more natural and fun. The pads can also be used to trigger audio phrases and RPS patterns, making them a great way to create phrase-based music.

■**Layer View Window**
Here you can view up to four multitimbral parts at once, making it easy to select Patches and set key ranges when creating splits and layers.

■**MFX Edit Window**
This screen makes it easy to assign any of the Fantom-S/-S88's effects processors to a particular part or output. MFX types and the reverb send level can also be adjusted here.

☐USB sample exchange

Importing samples from a PC or Mac is simple, thanks to a built-in USB port. Just browse your hard drive for .WAV/AIFF files, and import the audio using simple drag-and-drop commands (the Fantom-S/-S88 will appear on your computer as a hard drive). Now the audio can be used as a synth waveform or even assigned to the Dynamic Pad Bank for sequencing. Likewise, you can also export a fully mastered song to your computer for burning CDs or MP3 creation.

☐Streamlined mixing and performance setup

To make mixing easier, Roland gave the Fantom-S/-S88 a new Mixer View screen. Similar to the look and feel of a digital mixer, this screen offers intuitive graphic editing of

■**Performance Mixer Window**
Make adjustments to a multitimbral Performance like track level, panning and effects sends.

a multitimbral Performance—allowing you to change track levels, panning and effects settings using four front-panel knobs. And setting up the Performance is just as simple, thanks to a new Layer View screen with quick graphic editing of layering and key zones.

☐The word on effects

The Fantom-S/-S88 is loaded with pro-quality effects. To start, you get 24-bit reverb and a dedicated chorus processor that can also create delay. Up to three multi-effects processors are available in Performance mode, giving you tools like a –36dB/Oct Super Filter, a new "Infinite Phaser" that creates infinite ascending/descending sounds, COSM® Guitar Amp Modeling, Ring Modulator with 16-step modulator, split-frequency chorus/flanger, plus complex delays and multi-effects chains. (In Performance mode, all three MFX can be configured for parallel or serial use… Imagine the devastating effect of three Super Filters chained together!) A dedicated mastering processor lets you add the finishing touch with multi-band compression.

☐Programmable arpeggiator and D Beam

Roland took the original Fantom's Arpeggiator and Rhythm Generator functions to the next level by adding full programmability. Now you can graphically program your own 32-step patterns with individual velocity value bar graphs for each step! Use the Arpeggiator to create anything from wild synth patterns to bass lines and chord comping, or add realistic-sounding drums with the Rhythm Generator. And with the Fantom-S/-S88's D Beam Controller, you can adjust controllers like filter cutoff or volume, trigger pads, or even play an analog-style monosynth using an infrared beam of light.

*D Beam light has been colored for illustrative purposes only. Actual infrared light beam is invisible.

■**Programmable Arpeggiator**
Create your own arpeggiator patterns by inputting notes in the 32-step grid. Parameters such as pitch, velocity and note duration can be specified for each step.

☐Workstation, or stage piano?

Choose the Fantom-S/-S88 and you'll get both. Simply press the Piano Mode button and you can instantly play an acoustic piano Patch using Roland's unique Progressive Hammer-Action Keyboard and Sympathetic Resonance effect. The piano's "lid angle" can be adjusted using a special screen on the LCD.

■**Editor Software**
The Fantom-S/-S88 comes bundled with editing software for Mac and PC. Using a simple USB connection, you can edit the Fantom's sounds on your computer via an intuitive graphic interface.

■**Mastering Window**
The Fantom-S/-S88's mastering processor offers split-frequency compression. Here you can adjust the compressor settings for each frequency band (Hi, Mid, Lo).

☐V-LINK onboard video control

With V-LINK and the optional Edirol DV-7PR Digital Video Workstation (sold separately), you can trigger video clips from the Fantom-S/-S88's sequencer or Dynamic Pad Bank. Capture your background music using Skip Back Sampling and paste it with the video clip onto a single pad. Any audio/visual combination you perform can be instantly recalled! This is the future of performance, and the Fantom-S Series can take you there today.

V-LINK

With V-LINK, musicians can trigger and control Edirol video products from the Fantom-S/-S88's keyboard and pads using a single-cable connection.

Specifications

■**Keyboard** [S] 61 keys (with velocity and channel aftertouch) / [S88] 88 keys (Progressive Hammer-Action mechanism and channel aftertouch) **[Sound Generator Section]** ■**Maximum Polyphony** 64 voices (shared with the sampling section) ■**Parts** 16 ■**Wave Memory** 64 MB (16-bit linear equivalent), Waveforms: 1,228 ■**Preset Memory** Patches: [S] 640 + 256 (GM2) / [S88] 648 + 256 (GM2), Rhythm Sets: 32 + 9 (GM2), Performances: 64 ■**User Memory** Patches: 256, Rhythm Sets: 32, Performances: 64 ■**Card Memory (SmartMedia)** Patches: 256, Rhythm Sets: 32, Performances: 64 **[Sampling Section]** ■**Data Format** 16-bit linear (File Type: .WAV/AIFF) ■**Sampling Frequency** 44.1 kHz (fixed) ■**Maximum Sampling Time** <Internal memory (32 MB) only> mono: 360 sec. approx., stereo: 180 sec. approx. <with DIMM (288 MB)*1> mono: 54 min. approx., stereo: 27 min. approx. ■**Number of Samples** User memory: 2,000 (maximum total approximately 16 MB), Card memory: 7,000 (128 MB SmartMedia) **[Sequencer Section]** ■**Tracks** Phrase tracks (16 MIDI channels per track): 16, Pattern track (16 MIDI channels per track): 1, Tempo track: 1, Beat track: 1 *The Pattern Track can hold up to 100 patterns. ■**Resolution** 480 TPQN ■**Tempo** 5 to 300 ■**Note Capacity** approx. 400,000 notes ■**Song Length** 9,998 measures ■**Recording Method** Realtime recording, Step recording ■**Effects** MFX (Multi-effects): 3 systems, [S] 77 types / [S88] 78 types, Chorus: 3 types, Reverb: 5 types, Input Effect: 6 types, Mastering Effect: 3-band Compressor ■**Expansion Slot** <Internal sound generator expansion(Waveforms, Patch)> SRX expansion boards: 4 slots*1 <Sampling memory expansion> DIMM: 1 slot (128 MB or 256 MB (3.3 V) recommended) <Memory card expansion> SmartMedia card: 1 slot (supports 8 MB/16 MB/32 MB/64 MB/128 MB (3.3 V)) **[Others]** ■**Arpeggiator** Preset: 128, User: 128 ■**Rhythm Pattern** Preset: 256 (32 groups), User: 256 (32 groups) ■**Chord Memory** Preset: 64, User: 64 ■**Display** 320 x 240 dots, four-shade graphic LCD (QVGA) ■**Pads** 16 pads, Velocity and Aftertouch sensitive ■**Controllers** Pitch Bend/Modulation Lever, Control Knobs x 4, Assignable Switch x 2, D Beam Controller ■**Connectors** Headphones Jack, A (MIX) Output Jacks (L/MONO, R) (1/4 inch TRS phone type), B Output Jacks (L, R) (1/4 inch phone type), Input Jacks (L (MONO)/MIC, R) (1/4 inch phone type), Hold Pedal Jack (Half Pedal possible), Control Pedal Jack (assignable), MIDI Connectors (IN, OUT, THRU), USB Connector [supports file transfer (mass storage class)], Digital Audio Interface (COAXIAL/OPTICAL OUTPUT only), AC Inlet ■**Power Supply** AC 117 V, AC 230 V, AC 240 V ■**Power Consumption** 17 W ■**Dimensions** [S] 1,050 (W) x 358 (D) x 109 (H) mm, 41-3/8 (W) x 14-1/8 (D) x 4-5/16 (H) inches / [S88] 1,408 (W) x 455 (D) x 151 (H) mm, 55-7/16 (W) x 17-15/16 (D) x 6 (H) inches ■**Weight** [S] 12.5 kg, 27 lbs 9 oz / [S88] 29.5 kg, 65 lbs 1 oz ■**Accessories** Quick Start, Owner's Manual, Sound/Parameter List, Sample Data (Audio) CD, CD-ROM (Editor), Power Cable ■**Options** Wave Expansion Board: SRX Series, Keyboard Stand: [S] KS-12 / [S88] KS-17, Pedal Switch: DP-2, Damper Pedal: DP-6/8, Foot Switch: BOSS FS-5U, Expression Pedal: EV-5

*1 If the maximum DIMM expansion is installed, only two SRX slots will be available.

Fantom-S/-S88 Editor Software System Requirements (Windows)

■**Operating System :** Microsoft® Windows® XP, Microsoft® Windows® Me, Microsoft® Windows® 2000 Professional, Microsoft® Windows® 98/98SE ■**CPU/Clock :** Pentium® / Celeron™ processor 400 MHz or higher, Pentium® III 500 MHz or higher (recommended) ■**Memory (RAM) :** 128 MB or more, 256 MB or more (recommended) ■**Display/Colors :** 800 x 600 or higher / 65,536 colors (16 bit High Color) or more, 1,024 x 768 or higher (recommended) ■**Hard Disk :** 80 MB or more

Fantom-S/-S88 Editor Software System Requirements (Macintosh)

■**Operating System :** Mac OS 8.6 and 9.x ■**CPU/Clock :** PowerPC G3 / 233 MHz or higher ■**Memory (RAM) :** 128 MB or more, 256 MB or more (recommended) ■**Display/Colors :** 800 x 600 or higher / 32,000 colors or more, 1,024 x 768 or higher (recommended) ■**Hard Disk :** 80 MB or more

The World's Most Musician-Friendly Keyboards.

*D Beam light has been colored for illustrative purposes only. Actual infrared light beam is invisible.

Roland's new RS-70 and RS-50 Synthesizers are designed so musicians can focus on making music. Both models sport an all-new collection of CD-quality sounds, cool performance features and simple Direct Access buttons for selecting Patches. The flagship RS-70 even includes a loop-based sequencer, making it Roland's most affordable workstation keyboard.

RS-70 RS-50

V-LINK midi2 USB

midi2

Quick Sequencer

The RS-70's Quick Sequencer offers a fast and easy way to play along with preset patterns or create your own multitrack sequences.
Let's select a Preset Rhythm Pattern and record additional parts over it.

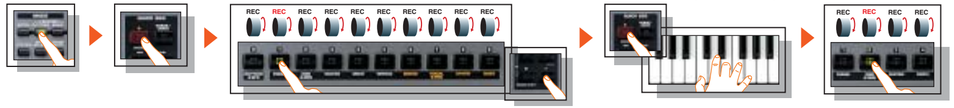
1 Press [PATTERN] to enter Pattern mode and use the Value [–]/[+] buttons to select a rhythm pattern.

2 Press the [●] button to enter the Recording Standby mode.

3 Press [PART SELECT]. Select the part you want to record by pressing the [0]-[9] buttons and use the Value [–]/[+] buttons to choose the corresponding Patch.Then press [▶] to begin recording.

4 Press [●] again to enter Rehearsal mode. While practicing, feel free to try another part and Patch by using the [0]-[9] and Value [–]/[+] buttons as the loop plays back. Press [●] again to continue recording.

5 Repeat Step 4 for each part, until the song is completed.



Outstanding New Sounds

Thanks to 24-bit D/A converters, new CD-quality waveforms and an entirely new set of Patches, the RS-70 and -50 sound far more expensive than they are. From the delicate nuances of the acoustic piano and guitar Patches to the rich tones of the brass and synthesizer sounds, you'll immediately hear the difference. Bundled editor software makes it easy to dive in and program your own sounds, while new Direct Access buttons allow for easy Patch selection by category.

Easy Instrument-Based Sequencing

Instead of using complicated concepts like MIDI channels and tracks, the RS-70's Quick Sequencer is based on sounds. To create a sequence, simply choose a sound and record. As the recording loops, additional sounds can be selected and overdubbed until all parts are entered. Realtime and step recording are both supported, along with Microscope editing. And with 128 Preset patterns—including 110 rhythm patterns—the RS-70 lets you make music immediately.

Made for Performance

With the new Multi Chord Memory function, musicians can play a variety of complex chords using a single note and even save their favorite chords as a set. An onboard Phrase/Arpeggio Generator (programmable on the RS-70) makes it easy to trigger phrases at the touch of a key—great for performance. The RS-50 also features a Rhythm Guide metronome with preset rhythm patterns in a variety of styles.

Loaded with Extras

The RS-70 includes a built-in floppy drive for loading GM/GM2-compatible Standard MIDI Files—making it a great choice for solo performers. It also has a USB-MIDI interface for simple and easy connection to computer-based sequencers.

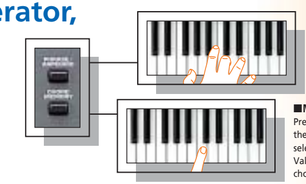
Futuristic Performance Features

Both the RS-Series models feature Roland's popular D Beam Controller, which can be used to control functions like pitch or filter cutoff using an infrared light beam. The D Beam can also be used to fade in a sound, or change a sound's volume or timbre via Active Expression. And with the RS-70's V-LINK technology, musicians can trigger video clips right from the keyboard*.

*V-LINK requires the Edirol DV-7PR Digital Video Workstation (sold separately) with software version 1.50 or higher.

Phrase/Arpeggio Generator, Multi Chord Memory

Make music just by holding down a key! Use the Phrase/Arpeggio Generator to create wild arpeggios or select Chord Memory to play complex chords with a single finger.



■**Phrase/Arpeggio Generator**
Press [PHRASE/ARPEGGIO] and play a note or chord on the keyboard. An arpeggio will sound based on what you play. Pressing the [0]-[9] buttons allows you to select arpeggio templates suitable for the sound you are playing.

■**Multi Chord Memory**
Press [CHORD MEMORY]. When you play a note on the keyboard, you'll hear a chord based on the selected chord structure. To change chords, use the Value [–]/[+] buttons to select a Chord Set (typical chord progressions are provided as presets).

Specifications

■**Keyboard** 61 keys (with velocity) **[Sound Generator]** ■**Maximum Polyphony** 64 voices (conforms to General MIDI 2 System) ■**Parts** 16 * Each part (patch) can be assigned two tones; can be split or layered. ■**Wave Memory** [RS-70] 64 MB (16-bit linear equivalent) [RS-50] 32 MB (16-bit linear equivalent) ■**Preset Memory** [RS-70] Original Tones: 1,024, Patches: 768 (RS-70 original: 512, General MIDI 2: 256), Rhythm Sets: 30 (RS-70 Original: 21, General MIDI 2: 9) * Each Preset Pattern provides one Performance. [RS-50] Original Tones: 640, Patches: 512 (RS-50 Original: 256, General MIDI 2: 256), Rhythm Sets: 20 (RS-50 Original: 11, General MIDI 2: 9), Performances: 32 ■**User Memory** [RS-70] Patches: 128 * Each Patch can be assigned two Tones., Rhythm Sets: 16 [RS-50] Patches: 128 * Each Patch can be assigned two Tones., Rhythm Sets: 2, Performances: 8 ■**Effects** MFX(Multi-effects): 47 types, Reverb: 8 types, Chorus: 8 types **[Quick Sequencer (RS-70)]** ■**System** Instrument-based pattern sequencer with realtime pattern switching function ■**Recording Methods** Realtime loop recording, Step recording ■**Tracks** 16 tracks/1 pattern ■**Resolution** 96 TPQN ■**Note Storage** Approx. 100,000 notes ■**Tempo** 5 to 300 BPM (with tap tempo function) ■**Patterns** User Patterns: max. 256 * The 128 Preset Patterns (including 110 Rhythm Patterns) are provided as part of the User Patterns, that can be rewritten and deleted. ■**Pattern Length** 1 to 998 measures ■**User Songs** max. 99 **[Others]** ■**Multi Chord Memory** Preset Chord Sets: 16 * 12 chord forms are assigned to each set., User Chord Sets: 8 * 12 chord forms can be assigned to each set. ■**Phrase/Arpeggio** Templates: over 300, User Templates: 8, Styles: over 400, User Styles (RS-70): 8 ■**Rhythm Guide Function (RS-50)** Patterns: 32, Tempo: 5 to 300 BPM (with tap tempo function) ■**Controllers** D Beam controller: 1, Pitch bend/Modulation lever: 1, Control knobs: 5 ■**External Storage Device (RS-70)** 3.5 inch floppy disk: 1.44 MB (2HD), 720 KB (2DD) (SMF music files for General MIDI or General MIDI 2 can be played.) ■**Display** 20 characters, 2 lines (Backlit LCD) ■**Connectors** Output jacks (L/MONO, R), Headphones jack, MIDI connectors (IN, OUT), Hold pedal jack, Control pedal jack, USB connector (USB-MIDI, RS-70 only) ■**Power Supply** DC 9 V (AC adaptor) ■**Current Draw** [RS-70] 1,500 mA [RS-50] 1,000 mA ■**Dimensions** 1,033 (W) x 294 (D) x 103 (H) mm, 40-11/16 (W) x 11-5/8 (D) x 4-1/16 (H) inches ■**Weight** [RS-70] 5.8 kg/12 lbs. 13 oz. [RS-50] 5.5 kg/12 lbs. 3 oz. ■**Accessories** Owner's Manual, AC Adaptor (RS-70: PSB-1U, RS-50: ACI Series or PSB-1U), CD-ROM (Editor program for PC/Mac, USB-MIDI driver (RS-70))

RS-70 Rear Panel

RS-50 Rear Panel

RS Editor Software System Requirements (Windows)

■**Operating System:** Microsoft® Windows® XP, Microsoft® Windows® Me, Microsoft® Windows® 2000 Professional, Microsoft® Windows® 98/98SE ■**CPU/Clock:** Pentium® / Celeron™ processor 400 MHz or higher, Pentium® III 500 MHz or higher (recommended) ■**Memory (RAM) :** 128 MB or more, 256 MB or more (recommended) ■**Display/Colors:** 1,024 x 768 or higher/65,536 colors (16 bit High Color) or more ■**Hard Disk:** 40 MB or more

RS Editor Software System Requirements (Macintosh)

■**Operating System:** Mac OS 8.6 and 9.x ■**CPU/Clock:** PowerPC G3 / 233 MHz or higher ■**Memory (RAM) :** 128 MB or more, 256 MB or more (recommended) ■**Display/Colors:** 1,024 x 768 or higher/32,000 colors or more ■**Hard Disk:** 40 MB or more

Complete Realtime Audio Control for Mac and PC.

VariOS gives musicians the ability to control audio with the same flexibility as MIDI, thanks to a refined version of Roland's award-winning VariPhrase™ technology. Powered by Roland's R-Core engine, this open-ended hardware/ software system can take on entirely new functions via optional firmware and software upgrades.

VariOS
OPEN SYSTEM MODULE

VariPhrase USB
Win XP/2000/Me/98SE
Mac OS 9.04/OS X 10.2

■**PhraseScope Window**
PhraseScope allows you to control a sample with MIDI notes. By editing note data, you can create new melodies or add harmonies. Phrasing and vocal gender can also be freely edited.

The Power of VariPhrase in Your Mac or PC

Imagine having a software program that allows you to build complete audio-based productions in real time without draining your computer's processor. That's the idea behind VariOS. This open-architecture system combines intuitive V-Producer for VariOS software with a 1U hardware module to create the most powerful audio production system ever conceived. Create complete 6-part audio arrangements while freely manipulating pitch, time and formant. VariOS also comes with separate reverb, chorus and multi-effects so you can process and mix your samples in a plug-in like environment. A simple USB connection is all it takes to be up and running. VariOS is compatible with the latest generation of PC and Mac operating systems, including Windows XP and Mac OS X.

GrooveScope: Taking Loops to the Extreme

V-Producer's GrooveScope window provides total control over your loops, enabling you to not only tweak pitch and tempo in real time, but also re-construct a groove into something new. GrooveScope displays audio as time-sliced events. From there, you can use the graphic editor to alter each event's pitch, time and formant independently—without changing the timing or sound quality. Events can even be re-arranged in real time, enabling you to create endless loop variations without stopping the music. Pitch and time adjustments can also be recorded into V-Producer using the VariOS module's knobs while scanning the entire loop repeatedly. This level of control is only possible with VariOS. And since it's all non-destructive, you can always get back to square one.

PhraseScope: The Ultimate Vocal Tool

What GrooveScope is to loops, PhraseScope is to vocals and solo instruments. This graphic editor separates the melody content from a phrase, allowing users to re-construct a new melody—or add realistic harmonies—at any point within the phrase. This editing can be done in the software or by simply playing in notes from a MIDI keyboard. Take a lead vocal or melodic instrument phrase and change the notes, phrasing, subtle expressions and vocal gender without unwanted artifacts—all in real time and non-destructively. Save time by creating a harmony track from an existing lead vocal without having to bring a singer back for overdubs. Do it graphically in V-Producer or play it in from a keyboard. The choice is yours.

■**GrooveScope Window**
GrooveScope displays a loop as "slices" that can be dragged and repositioned on a grid. Pitch, time, formant and dynamics can also be edited for each event to create new loops.

A Powerful Module with Massive Upgrade Potential.

■**Wave Edit and Encode Window**
Here you can trim a sample, set the original tempo, select the encoding type and create or adjust slice points for use in the Scope editors.

☐ Easy Encoding and Song Construction

The VariOS module features a built-in USB port, making it easy to browse your computer's hard drive for audio files and batch encode them for VariPhrase processing. Three types of encoding are available: Solo encoding is designed for lead vocals and solo instruments, while Backing is optimized for drum loops. Ensemble encoding works best for polyphonic pitched sounds such as pads and strings. Once encoded, audio files are transferred via USB to the VariOS module. With V-Producer, a complete song can be assembled using simple drag-and-drop commands, while taking advantage of nine types of reverb, eight varieties of chorus and 40 amazing-sounding COSM® multi-effects.

☐ Use It With Your Favorite DAW…

Do you work in a digital audio sequencer like Logic, Cubase, Performer, Sonar or ProTools? Create your arrangement in VariOS and use the Export feature to save the encoded audio files—or an entire song—as .WAV or AIFF files. Then import the audio into your favorite DAW for mixing and further processing. Arrangements can also be saved as Standard MIDI Files (Format 1), and you can sync V-Producer via MIDI clock and MTC.

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☐ … Or Take It On the Road

The VariOS module features a stand-alone mode for times when a computer isn't practical. Simply encode the samples, load them to the module via USB and edit them in V-Producer. Now they can be saved to the module's flash memory or optional PC card, giving you a 6-part multitimbral sound module capable of playing 14 phrases simultaneously—complete with realtime control over pitch, time and formant. It's like a VariPhrase processor to go!

☐ Open-Ended System for Future Enhancements

One of the best reasons to own VariOS is that its functionality is not limited to audio construction. Since the module is simply a dedicated processor (based on Roland's new R-Core Technology), VariOS can become an entirely new product just by loading new firmware into the module via USB. Once the download is complete and the module is rebooted, simply launch the new control software and VariOS becomes whatever new product you selected—all with the same reliable performance you expect from Roland hardware and without taxing your CPU. Of course the VariOS module can be switched back to the default VariPhrase audio construction system at any time, regardless of what new firmware has been installed.

So what kind of optional firmware will be available? From V-Producer software version 2.1 and forward, Roland will include two trial firmware sets with bundled control software: the VariOS-8 and VariOS 303. These new firmware sets turn the VariOS module into a polyphonic Analog Modeling Synth and monophonic Analog Modeling Bass Synth, but with modern conveniences like onboard effects and more. Imagine having both of these amazing instruments alive in software and without draining your CPU! These are just some of the possibilities that await when you put the power of VariOS in your studio.

■**Sample Edit Window**
Here you can make adjustments at the sample level including LFO settings, portamento, playback options and more.

■**Load Wave File Window**
This browser window makes it easy to select .WAV/AIFF/SDII files from your computer's hard drive for import. Batch loading and encoding is also supported.

■**Mixer Window**
Adjust the level, panning and effects sends for each VariOS part.

■**Effects Window**
Edit the VariOS module's reverb, chorus and multi-effects processors.

■**VariOS Keyboard**
A virtual keyboard for use within V-Producer.

■**SMPTE Display**
Displays SMTPE time code being generated or received by V-Producer.

■**VariOS-8**
It's like having a vintage Roland polysynth reborn in VariOS software. Detailed editing screens make programming sounds and the onboard effects quick and intuitive.

☐ VariOS-8 Analog Modeling Synth

Known for their warm rich sound, Roland's analog polysynths have been used by countless musicians. And now these sounds can be yours in the new VariOS-8—without draining your CPU! It's all here: two creamy oscillators with a choice of several analog waveforms and sub-oscillator emulation, low-pass and high-pass filters connected in serial, envelope generators and LFOs, plus velocity-sensitivity and an arpeggiator. New features include the ability to configure the oscillators for intermodulation and waveform sync, plus professional-quality effects and detailed editing screens. And since the VariOS module can work stand-alone, you can use the VariOS-8 like a preset analog modeling synth.

☐ VariOS 303 Analog Modeling Bass Synth

Designed exclusively for VariOS, the VariOS 303 is an analog-modeled bass synth reminiscent of Roland's vintage TB-303. All the original controls are provided, including the step sequencer and "Slide" parameter. But thanks to the power of Roland's R-Core technology, this bass synth has been updated to include an impressive collection of effects designed to give you more aggressive sounds. These include a compressor, overdrive/distortion, chorus, delay and 3-band EQ—all connected in serial. What's more, there are now two ways to create patterns. Choose from the classic step sequencing of the original, or use the new Slider Pattern screen for easier programming.

■**VariOS 303**
Get those classic "acid" bass sounds complete with step sequencing. A new Slider Pattern screen makes programming patterns and "slides" easier than ever.

* Please note that the VariOS-8 and VariOS 303 are currently not compatible with Mac OS X.

Specifications

■**Sound Generator** VariPhrase ■**Parts** 1 to 6 ■**Maximum Polyphony** 14 voices ■**Internal Memory** Performance: 1, Samples: 128, Wave memory (RAM): 46 MB, Backup memory (FLASH): 32 MB ■**External Storage Device** PC CARD slot (Microdrive, SmartMedia or CompactFlash can be used with PC card adaptor) ■**Sampling Frequency** 44.1 kHz (Internal) ■**Data Format** 16-bit linear ■**Signal Processing** AD Conversion: 24 bits, DA Conversion: 24 bits, Internal processing: <sound generating section> 32 bits (floating point), <effects section> 24 bits (fixed point) ■**Nominal Input Level** INPUT (LINE): -18 dBu, INPUT (MIC): -43 dBu ■**Nominal Output Level** MAIN OUT: +4 dBu, DIRECT OUT: +4 dBu ■**Effects** MFX(Multi-effects): 40 sets, Reverb: 9 sets, Chorus: 1 set (8 types) ■**Display** 16 characters, 2 lines (backlit LCD) ■**Connectors** USB Connector, Headphones Jack, Main Output Jacks (L/MONO, R), Direct Output Jacks (L, R), Input Jacks (L, R), MIDI Connectors (IN, OUT), Digital Audio Output: S/P DIF Connectors (COAXIAL, OPTICAL) (24-bit, 44.1 kHz), AC Inlet ■**Power Supply** AC 117 V, AC 230 V, AC 240 V ■**Power Consumption** 10 W (AC 117 V), 12 W (AC 230 V, AC 240 V) ■**Dimensions** 430 (W) x 222 (D) x 44 (H) mm, 16-15/16 (W) x 8-3/4 (D) x 1-3/4 (H) inches (EIA-1U Rack Mount Type) ■**Weight** 2.2 kg, 4 lbs 14 oz ■**Accessories** Owner's Manual, CD-ROM, Power Cord, USB Cable, Rackmount Adaptor (two pcs.)

(0 dBu = 0.775 V rms)

V-Producer for VariOS Software System Requirements (Windows)

■**Operating System:** Microsoft® Windows® XP Home/XP Professional/2000 Professional/Me/98 Second Edition *Windows® XP/2000 recommended ■**Computer:** Windows®-compatible personal computer equipped with a USB port ■**CPU/Clock:** Pentium®, Celeron™, Intel-compatible Processor / 500 MHz or higher ■**Memory (RAM):** 128 MB or more ■**Display/Colors:** 800 x 600 pixels or higher/65,535 colors or more (High Color 16 bit)

* Although Roland has tested numerous configurations, and has determined that on average, a computer system similar to that described above will permit normal operation of V-Producer software, Roland cannot guarantee that a given computer can be used satisfactorily with V-Producer based solely on the fact that it meets the above requirements. This is because there are too many other variables that may influence the processing environment, including differences in motherboard design and the particular combination of other devices involved.
* If you are using this system together with other software, the system requirements may exceed those listed above.

V-Producer for VariOS Software System Requirements (Macintosh)

■**Operating System:** Mac OS 9.0.4 or later, Mac OS X v10.2 or later ■**Computer:** Apple Macintosh computer equipped with a USB port ■**CPU/Clock:** <OS 9> PowerPC G3 / 233 MHz or higher <OS X> PowerPC G3 / 500 MHz or higher ■**Memory (RAM):** 192 MB or more (256 MB or more is recommended) ■**Display/Colors:** 800 x 600 pixels or higher/32,000 colors or more

Optional Equipment

	Keyboard Stands	Controllers	Pedal Switches etc.	Keyboard Amplifiers	Others
V-Synth	KS-12	EV-5 FV-300L BOSS *To use the FV-300L as an expression pedal, optional stereo cables (PCS-33) are necessary.	DP-8 DP-2 FS-5U BOSS	KC-550 KC-350 KC-150 KC-60 KCW-1	DR-20 RH-50
Fantom-S	KS-12				SRX-01-09 DR-20 RH-50
Fantom-S88	KS-17				
RS-70/50	KS-12				RH-50

SRX-Series WAVE EXPANSION BOARD

Roland's Premier Sound Library
The SRX-Series is Roland's next-generation sound library for "SRXpandable" instruments like the Fantom-S/-S88. With a strong focus on quality, each 64MB-equivalent expansion is loaded with sounds for all types of applications and genres. And with nine titles to choose from and more on the way, there's an SRX expansion that's right for you.

SRX-01	SRX-02	SRX-03	SRX-04	SRX-05	SRX-06	SRX-07	SRX-08	SRX-09
								
Dynamic Drum Kits	Concert Piano	Studio SRX	Symphonique Strings	Supreme Dance	Complete Orchestra	Ultimate Keys	Platinum Trax	World Collection

Keyboard Amplifier


KC-550

Simply the Best.
The Roland KC-Series has earned a reputation for powerful sound and flexible mixing. Now with the introduction of the new KC-Series, that legacy is set to continue. All models feature a stereo Auxiliary input and XLR Microphone input, multi-channel mixing capabilities and compatibility with the new KCW-1 Powered Subwoofer.

KC-550 Stereo Mixing Keyboard Amplifier
KC-350 Stereo Mixing Keyboard Amplifier
KC-150 4-ch Mixing Keyboard Amplifier
KC-60 3-ch Mixing Keyboard Amplifier

Powerful Low End for Any Amp.
The KCW-1 Powered Subwoofer is a convenient way to add 200 watts of punchy low end to sub-out equipped KC amps, or to standard amplifiers via the stereo Thru output. Knob-based controls make this sub incredibly easy to use.

KCW-1
Powered Subwoofer

KS-12 Keyboard Stand


KS-17 Keyboard Stand


EV-5 Expression Pedal


FV-300L BOSS Volume/Expression Pedal


FS-5U BOSS Foot Switch


DR-20 Dynamic Microphone


RH-50 Stereo Headphones


DP-2 Pedal Switch


DP-8 Damper Pedal


COSM Composite Object Sound Modeling

Once a musical instrument generates sound vibrations, it reaches the human ear through various mediating objects, each of which significantly affects the sound. The material and configuration of the instrument, the electric/electronic/magnetic amplifying system, the air and the reverberation of the room all affect the final sound. Sound modeling, the latest DSP technology, "virtually" reconstructs these objects. Roland's breakthrough Composite Object Sound Modeling (COSM) uses the advantages of multiple modeling methods and succeeds in accurately emulating existing sounds, as well as producing sounds that have never before been created.

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