

GAIA

SYNTHESIZER SH-01



The origin of sound, the future of creativity...

Dream. Create. Perform.

Named for the mythological goddess GAIA, the SH-01 synthesizer symbolizes creation. With its massive analog-modeled tone and friendly hands-on control panel, this inviting instrument harks back to the genesis of synthesis, yet it utilizes today's most advanced technology. The triple-stacked engine puts potent virtual analog synthesis under your fingertips, driven by a control panel that's fast and fun to use. The signal flow is simple to grasp, with logically arranged knobs, sliders, and buttons. Even first-timers can create great sounds!



Combining the vintage spirit of analog synths with state-of-the-art technology.

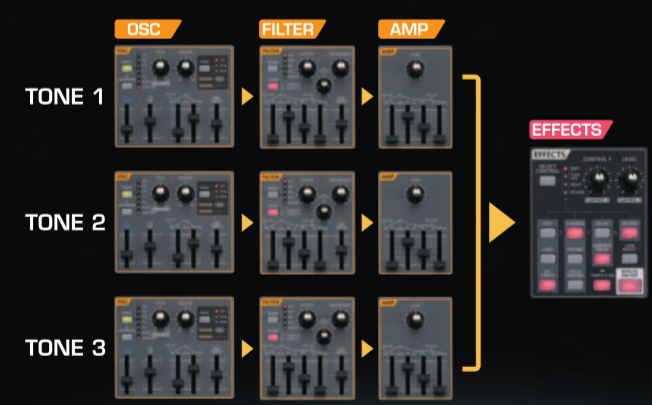
At the heart of GAIA is Roland's newly developed virtual-analog engine that combines the DNA of Roland's coveted analog synths, such as the SH-1000, with cutting-edge synthesis.

Hands-on panel design that's easy to understand.

The foundation of sound creation is an instrument's user interface, and how fluidly it lets you customize sounds. GAIA features a front panel that's logically laden with knobs and sliders — adhering to the basics of synthesis and signal flow.

Create dense synth sounds on a single unit. Express yourself with GAIA's triple virtual-analog engine.

GAIA lets you create incredibly thick, powerful sounds. Three oscillators drive a trio of multimode, resonant filters, multi-shape LFOs, and amplifiers, plus nine envelope generators, and a complete multi-effects system.



SYNTHESIZER x3
Create dense sounds with GAIA's powerful synth engine, which delivers the equivalent of three complete synthesizers. Manipulate sound on all three layers at once or individually.

LFO
Add colorful waveform-based modulation to achieve vibrato, wah, or tremolo effects. GAIA provides a natural connection between its controls and the transition of sounds they produce.

OSC
21 oscillator waveforms (3 variations of 7 types) forms the basis of GAIA's sound. In addition to standard sine, square, and sawtooth waves, GAIA is equipped with Roland's famous SUPER SAW waveform (inherited from Roland's classic JP-8000 and V-Synth GT) plus oscillator sync and ring modulation.

FILTER
Create cool variations in tone with the filter. From buttery smooth tonal sweeps to rip-saw howls and squeals, you can make the filter sing with resonance and cut-off controls.

AMP
This section is used to add time-based variations to your tone. Specify the difference between sustained tones produced on an organ, for example, and decaying sounds produced on a piano.

EFFECTS
Effects are powerful tools for creating sounds. Add distortion or colorful fluctuations to your tone, or add spatial expanse and depth. Also included: BIT CRUSH for creating intense distortion and LOW BOOST for ultra-lows. GAIA's powerful effects section lets you use up to five types of effects in series.

D BEAM
Manipulate tone in real time by waving your hand over the invisible beam. Attract all eyes to your performance as you make dramatic gestures that alter the tone.

V-LINK
Sync your GAIA performances with video content to open up a new dimension in live entertainment.

BENDER/MODULATION
Push the lever left or right to bend the pitch of notes; push it forward for modulation (vibrato, etc.). These are must-have controllers for synth expression.



EXT IN
Connect your audio player to this jack and play backing tracks during a live show or use it for practice. The Center Cancel function minimizes the sound in the center of the sound spectrum for vocal or instrument training.

BATTERY POWER
GAIA can run on AC or battery power, great for street performances! Play up to five hours* on eight AA nickel metal hydride batteries.

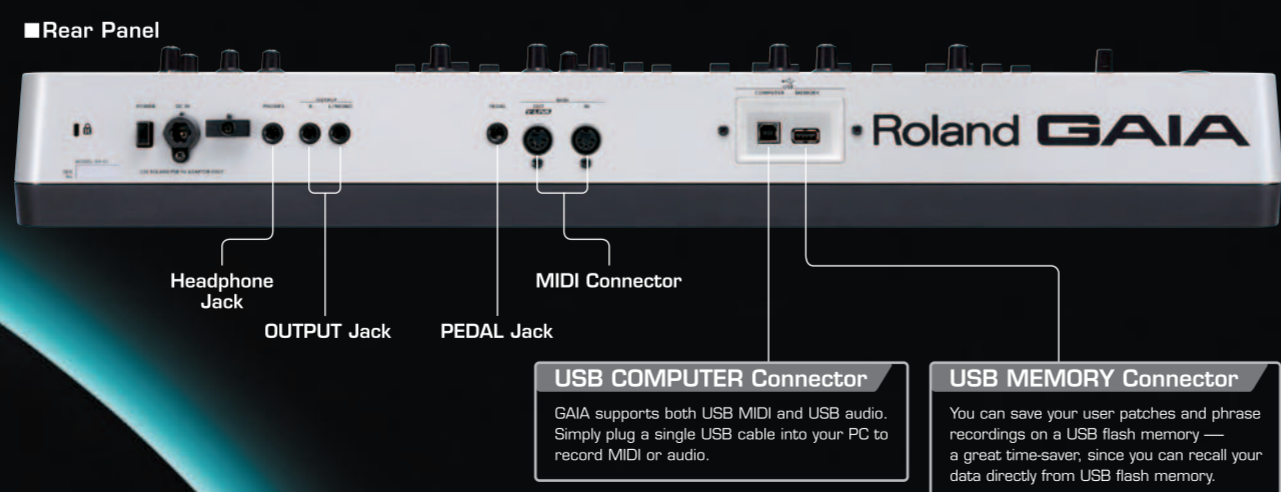
37 Keys
GAIA packs 37 keys into a slim and lightweight body. Place it atop your main keyboard or on your desk with minimal clutter.

OCTAVE UP/DOWN
Move the keyboard range up and down in octave increments. You can also transpose notes up or down in half-tone increments.

ARPEGGIO
Play auto arpeggios simply by holding chords. There are 64 arpeggio patterns onboard. You can save your favorite arpeggio pattern with a tone that suits it best.

PATCH SELECT
In addition to its 64 preset patches, GAIA lets you store up to 64 of your own patches. That's 128 instant sounds at your fingertips.

PHRASE RECORDER
GAIA comes with a Phrase Recorder that lets you record and play back your performance at will. You can also record knob or slider actions, such as complex filter movements, that can be applied to your live playing.



Headphone Jack

OUTPUT Jack

PEDAL Jack

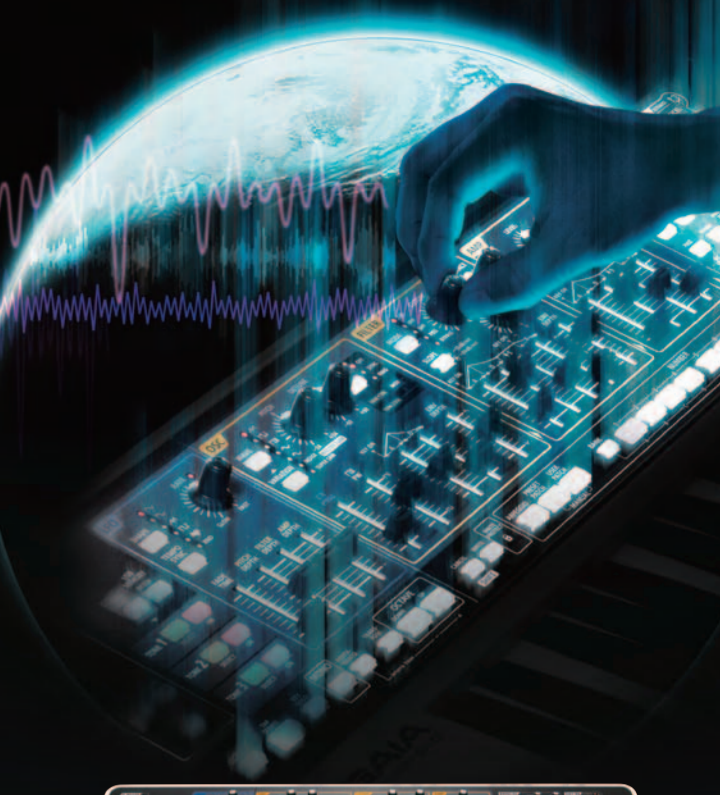
MIDI Connector

USB COMPUTER Connector
GAIA supports both USB MIDI and USB audio. Simply plug a single USB cable into your PC to record MIDI or audio.

USB MEMORY Connector
You can save your user patches and phrase recordings on a USB flash memory — a great time-saver, since you can recall your data directly from USB flash memory.

Specifications

Keyboard	37 keys (velocity sensitive)	REVERB	Reverb
Maximum Polyphony	64 voices	LOW BOOST	Low Boost
Sound Generator Section	Virtual analog synthesizer sound generator (Number of part: 1) Oscillator + Filter + Amp + Envelopes for each section + LFO x 3 PCM sound generator (Number of parts: 16)	Knobs	CONTROL 1, LEVEL
Patch Memory	Preset: 64, User: 64	Controllers	Pitch Bend/Modulation lever, D BEAM Controller
OSC Section	Oscillator waveform: SAW, SQUARE, PULSE/PWM, TRIANGLE, SINE, NOISE, SUPER SAW	Preset pattern	64
Knobs/Sliders	PITCH, DETUNE, RESONANCE, KEY FOLLOW	Phrase Recorder	User: # Number of Tracks: 1
Envelope	Attack, Decay, Sustain, Release, Envelope Depth	OUTPUT	OUTPUT jacks (L/MONO, R) (1/4 inch phone type) Headphone jack (Stereo 1/4 inch phone type) PEDAL jack (TRS phone type)
Modulation	Oscillator Sync, Ring Modulation (Tone 2's OSC is applied as modulation to Tone 1's OSC.)	Jacks/Connectors	MIDI Connectors (IN, OUT) USB COMPUTER (Supports USB Hi-Speed Audio/MIDI) (Use a USB cable and a computer with a USB connector that supports USB 2.0 Hi-Speed.) USB MEMORY (Supports USB 2.0 Hi-Speed flash memory) EXT IN jack (Stereo miniature phone type), DC IN jack
Filter Type	LPF, HPF, BPF, PKG (1-12 dB/-24 dB), BYPASS	Power Supply	DC 9 V (AC Adaptor or rechargeable nickel-metal hydride AA batteries (sold separately) x 8)
Knobs	CUTOFF, RESONANCE, KEY FOLLOW	Current Draw	600 mA * Battery life for continuous use (differs depending on the conditions of use) Rechargeable nickel metal hydride batteries: Approximately 5 hours (Approximately 4 hours if USB memory is connected) * Zinc-carbon batteries or alkaline batteries cannot be used
Envelope	Attack, Decay, Sustain, Release	Dimensions	mm: 686.3 (W) x 316.8 (D) x 90.5 (H) inches: 27.3/16 (W) x 12.1/2 (D) x 3.5/16 (H)
LFO Section	LFO Shape: TRIANGLE, SINE, SAW, SQUARE, Sample&Hold, Random	Weight	4.2 kg / 9 lbs 5 oz (excluding AC Adaptor)
Knobs/Sliders	RATE, FADE TIME, PITCH DEPTH, FILTER DEPTH, AMP DEPTH	Accessories	Guide Book, CD-ROM (USB DRIVER), DVD Video, AC Adaptor, Power Cord (for AC Adaptor)
Tempo Sync	ON/OFF		
Effects	Distortion, Fuzz, Bit Crash		
FLANGER	Flanger, Phaser, Pitch Shifter		
DELAY	Delay, Panning Delay (with tempo sync function)		



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Options

Carrying Case CB-37SY	Damper Pedal DP-2	Damper Pedal DP-10
Keyboard Stand KS-1BZ	Expression Pedal EV-5	2 GB USB Flash Memory M-UF2G

COSM
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 electromagnetic 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.

V-LINK
Using V-LINK, musicians can "play" video from their electronic instrument — or even control a live video camera — when used with Edrol video products. With V-LINK, musicians have a powerful interface for realtime audio and video integration.

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COSM V-LINK D BEAM USB AUDIO USB MEMORY

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