

Introduction

The SH-01A is a sound module that can be used in conjunction with the K-25m keyboard unit (sold separately). The sound can be heard through the built-in speakers.

- * The SH-01A can operate on batteries or on USB bus power. If you are using batteries, insert four AA batteries, making sure that the batteries are oriented correctly.
- * If you handle batteries improperly, you risk explosion and fluid leakage. Make sure that you carefully observe all of the items related to batteries that are listed in "USING THE UNIT SAFELY" and "IMPORTANT NOTES" (leaflet "USING THE UNIT SAFELY").
- * When turning the unit over, be careful so as to protect the buttons and knobs from damage. Also, handle the unit carefully; do not drop it.
- * When the batteries run low, the indication "b.L. L.O" appears in the display. Replace the battery as soon as possible.

Using the SH-01A in conjunction with the DK-01 Boutique Dock (sold separately)

- ➔ For installation / removal / angle adjustment, refer to the DK-01's Owner's Manual.

Using the SH-01A in conjunction with the K-25m keyboard unit (sold separately)

- ➔ For installation / removal / angle adjustment, refer to the K-25m's Owner's Manual.

Playing the SH-01A via MIDI or USB

You can also play the SH-01A via USB. For details, refer to "Connecting Your Equipment."

Connecting Your Equipment

- * To prevent malfunction and equipment failure, always turn down the volume, and turn off all the units before making any connections.



A Micro USB (←) port

Use a commercially available USB 2.0 cable (A-micro B) to connect this port to your computer. It can be used to transfer USB MIDI and USB audio data. You must install the USB driver when connecting the SH-01A to your computer. Download the USB driver from the Roland website. For details, refer to Readme.htm which is included in the download.

- ➔ <https://www.roland.com/support/>

- * Do not use a micro USB cable that is designed only for charging a device. Charge-only cables cannot transmit data.

B [VOLUME] knob

Adjusts the volume.

C PHONES jack

Connect headphones (sold separately) here.

D OUTPUT jack

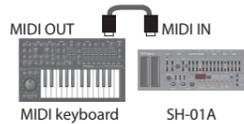
Connect this jack to your amp or monitor speakers.

E MIX IN jack

This is the audio input jack. Sound from the connected device is output from the OUTPUT jack and PHONES jack.

F MIDI jack

You can play the SH-01A by connecting a MIDI device via a commercially available MIDI cable.



Turning the SH-01A On

G [POWER] switch

This turns the power on/off.

- * After you've made connections correctly, be sure to turn on the power in the order of the SH-01A first, and then the connected system. Powering-on in the incorrect order may cause malfunctions or damage. When turning the power off, power-off the connected system first, and then the SH-01A.
- * Before turning the unit on/off, always be sure to turn the volume down. Even with the volume turned down, you might hear some sound when switching the unit on/off. However, this is normal and does not indicate a malfunction.

Returning to the Factory Settings (Factory Reset)

Here's how to return the SH-01A to its factory-set state.

1. While holding down the [2] button, turn on the power. The [MENU] button blinks. If you decide to cancel the factory reset, turn off the power.
2. Press the [MENU] button to execute the factory reset.
3. When all buttons blink, turn the SH-01A's power off, then on again.

Data Backup/Restore

Backup

1. Connect your computer to the SH-01A's USB port via USB cable.
2. While holding down the [MENU] button, turn on the power.
3. Open the "SH-01A" drive on your computer. The backup files are located in the "BACKUP" folder of the "SH-01A" drive.
4. Copy the backup files into your computer.
5. After copying is completed, eject the USB drive.

Windows 10/8/7

Right-click on the "SH-01A" icon and execute "Eject."

Mac OS

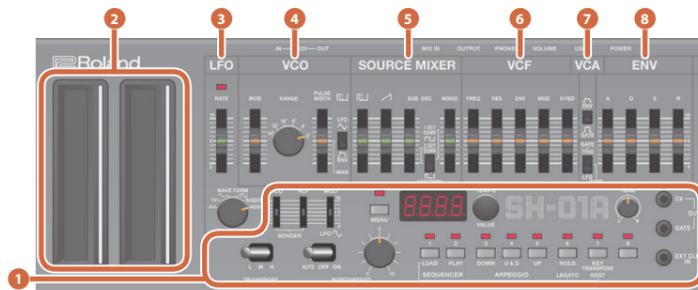
Drag the "SH-01A" icon to the Trash icon in the Dock.

6. Turn the SH-01A power off.

Restore

1. As described in the procedure for "Backup" Step 1–3, open the "SH-01A" drive on your computer.
2. Copy the SH-01A backup files into the "RESTORE" folder of the "SH-01A" drive.
3. After copying is completed, eject the USB drive and then press the [MENU] button.
4. After the LEDs have completely stopped blinking, turn off the power.

Panel Descriptions



1 Common section

Controller	Explanation
BENDER [VCO] [VCF] sliders	Specify the amount of pitch change (VCO) and the amount of filter change (VCF) that occurs when you perform pitch bend operations.
MOD [LFO] slider	Specifies the depth of the effect produced by the LFO when it is used for modulation.
[PORTAMENTO] knob	Adjusts the time taken by the pitch change.
PORTAMENTO switch	OFF: Portamento is not applied. AUTO: Portamento is applied only when you play legato. ON: Portamento is always applied.
[MENU] button	Select a menu item.
Display	Indicates the tempo or step. When you're selecting a patch or pattern, this indicates the bank and number. The decimal point of the first digit indicates that the pattern is being edited.  The decimal point of the fourth digit indicates that the sound is being edited. 
TRANPOSE switch	Shifts the pitch up or down by one octave. L: The pitch is one octave lower. M: The pitch is not changed. H: The pitch is one octave higher.

Controller	Explanation
[TEMPO/VALUE] knob	Adjusts the tempo. When selecting a patch, this knob switches banks. Hold down the SEQUENCER [LOAD] button and turn this knob to adjust the SHUFFLE value. Hold down one of the ARPEGGIO buttons and turn this knob to change the SCALE value.
[TUNE] knob	Adjusts the pitch of the entire SH-01A.
SEQUENCER [LOAD] button	Activates sequencer write mode.
SEQUENCER [PLAY] button	Starts the sequencer.
ARPEGGIO [DOWN] button	Selects TYPE "DOWN" and turns the arpeggio on.
ARPEGGIO [U&D] button	Selects TYPE "U&D" and turns the arpeggio on.
ARPEGGIO [UP] button	Selects TYPE "UP" and turns the arpeggio on.
[HOLD/LEGATO] button	Turns HOLD on. If ARPEGGIO is on, the arpeggio continues playing even after you release the keyboard.
[KEY TRANSPOSE/REST] button	Transposes the pitch. This lets you perform in a different key without changing your fingering.
CV/GATE OUT jacks	You can connect an analog synthesizer equipped with CV/GATE input jacks, and control its note on/off or pitch.
EXT CLK IN jack	The arpeggiator or sequencer can play in synchronization with a clock signal that is input from this jack.

2 Ribbon controllers (C1/C2)

These are touch-type ribbon controllers. C1 (left) is pitch bend, and C2 (right) is modulation. You can select either one octave or two octaves as the octave range of the arpeggiator. While you hold down the [DOWN] [U&D] [UP] buttons, the LED indication of C1 changes.

Operation	Explanation
Tap the lower half of C1	To select one octave (the bottom LED blinks).
Tap the upper half of C1	To select two octaves (the top LED blinks).

- * If a K-25m keyboard unit, USB, or MIDI are not connected, touching the C1 controller plays a preview sound.

3 LFO

Here you can create cyclic change (modulation) in the sound.

Controller	Explanation
[RATE] slider	Determines the speed of the LFO modulation.
Wave knob	Selects the LFO waveform. ∩ (Sawtooth wave), ∟ (Reverse sawtooth wave), ∨ (Triangle wave), □ (Square wave), RANDOM, NOISE

4 VCO

Selects the waveform that determines the character of the sound, and determines the pitch.

Controller	Explanation
[MOD] slider	Adjusts the depth to which the 3 LFO modulate the VCO.
[RANGE] knob	Specifies the octave of the oscillator.
[PULSE WIDTH] slider/switch	When the switch is set to "MAN" (MANUAL): The slider adjusts the pulse width value. When the switch is set to "LFO" or "ENV": The slider adjusts the depth of modulation. What is pulse width? Pulse width is a value indicating the percentage occupied by the upper segment of a square wave. If the upper and lower segments are unequal, the result is an asymmetrical square wave.

5 SOURCE MIXER

This mixer adjusts the volumes of the VCO, SUB OSC, and NOISE.

Controller	Explanation
[□] slider	Square wave level
[∩] slider	Sawtooth wave level
[SUB OSC] slider	Sub oscillator level
[SUB OSC] switch	Specifies the SUB OSC type. 1 OCT DOWN: One octave lower 2 OCT DOWN: Two octaves lower 2 OCT DOWN: Two octaves lower (narrow pulse width)
[NOISE] slider	Noise level

6 VCF

These settings determine the brightness and thickness of the sound. Here you can also specify the time-varying change (envelope) for the filter.

Controller	Explanation
[FREQ] slider	Specifies the cutoff frequency of the low-pass filter.
[RES] slider	Resonance boosts the sound in the region of the filter's cutoff frequency.
[ENV] slider	Adjusts the depth of control when using the envelope generator signal to control the VCF's cutoff frequency.
[MOD] slider	Adjusts the depth of control when using the modulator signal to control the VCF's cutoff frequency.
[KYBD] slider	Allows the filter cutoff frequency to vary according to the key that you play.

7 VCA

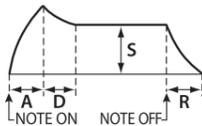
Here you can create time-varying change (envelope) for the volume.

Controller	Explanation
[ENV/GATE] switch	ENV: The note is sounded according to the envelope specified by the ADSR settings. GATE: The note sounds at a fixed volume only while the key is held down.

8 ENV

These settings specify the envelope.

Controller	Explanation
[A] slider	Attack time
[D] slider	Decay time
[S] slider	Sustain level
[R] slider	Release time
[GATE/TRIG] switch	Specifies what will trigger the envelope's attack. GATE+TRIG: The envelope attacks each time a key is pressed. LFO: When a key is held down, the envelope repeatedly attacks at each cycle of the LFO. GATE: The envelope attacks each time a key is pressed from a state of no keys being held. The envelope does not attack when notes are played legato.



Selecting/Saving Patches (Sounds)

Patch select mode

1. Press the [MENU] button.
2. Press the [1] button.

Controller	Explanation
[VALUE] knob	Switches banks.
[1]–[8] button	Switches patches.
[1]–[8] buttons (Long-press)	Writes the patch.
[MENU] button	Selects sequencer mode (normally).

Manual mode

1. Press the [MENU] button.
2. Press the [8] button.
Switches the patch to Manual.

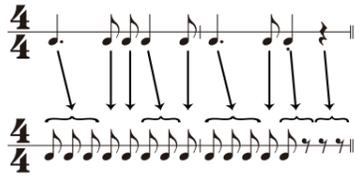
Sequencer

The SH-01A contains a digital sequencer that can record up to 100 steps, allowing it to automatically play simple phrases.

The operation of storing data in the sequencer is called “LOAD,” and the operation of making the sequencer play the data stored in the sequencer is called “PLAY.”

The SH-01A lets you easily and confidently load data into the sequencer by using the appropriate number of short notes or rests to represent notes and rests of various lengths.

Example when one step is an eighth note



Controller	Explanation
[LOAD] button	Starts/stops LOAD.
[PLAY] button	Starts/stops PLAY.
[REST] button	Loads a rest (only during LOAD).
[LEGATO] button	Used to load legato or slur (only during LOAD).

Sequencer Load

1. Press the [LOAD] button, getting the indicator to light.

2. Play the keyboard.

Pitches are recorded in the order of the keys that you press.

No matter how you play, the time values will turn out the same.

When one step is an eighth note

	No matter how you play the notes, all will be stored in the same time values.
	Press the [REST] button, the shortest rest will be memorized.
	Load the first note, then press the next note while holding the [LEGATO] button down.

3. Press the [LOAD] button to make the indicator go dark.

* This sequencer can store up to 100 steps, but the shortest time value is counted as one step, and the longer time values cost more steps.

* If all 100 steps are stored, the SH-01A will automatically return to normal playing condition.

Sequencer Play

1. Press the [PLAY] button, getting the indicator to light.

The loaded notes play back. All notes are played non-legato except for notes that you recorded legato.

When playback reaches the end of the loaded notes, playback returns to the beginning and continues repeating.

2. Press the [PLAY] button once again to stop playback.

* If slurs are recorded, make sure that the envelope generator’s gate/trigger select switch is set to GATE during playback.

Arpeggio

The SH-01A has an auto arpeggio function that automatically generates arpeggios according to the keys that you hold down.

Controller	Explanation
[UP] button, [U&D] button, [DOWN] button	Specifies the pattern of movement.
[VALUE] knob	Specifies the tempo.
Press the [HOLD] button.	Arpeggio continues even after you release the keyboard.
Hold down the [UP] or [U&D] or [DOWN] button and turn the [VALUE] knob.	Changes the SCALE setting.

Playing arpeggios

1. Press the [UP], [U&D], or [DOWN] button.

The indicator is lit.

2. Press two or more keys simultaneously.

An arpeggio plays.

* The SH-01A’s arpeggio function works only when you hold down multiple keys simultaneously; you can play normally by playing single notes non-legato (releasing the previous key before pressing the next key).

Turning the arpeggio function off

1. Once again press the button that’s on (whose indicator is lit).

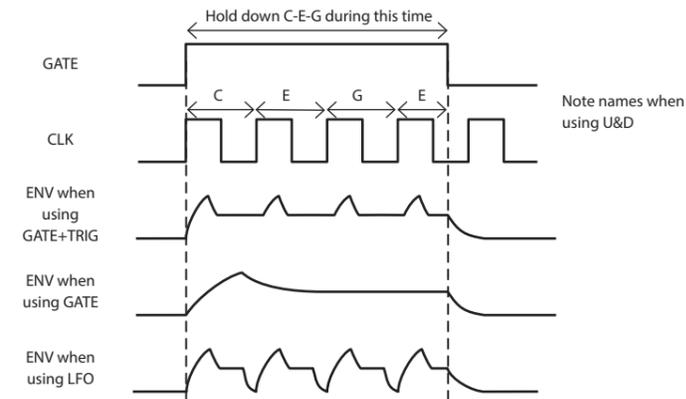
You return to normal playing.

Note

* If you press the notes of the chord at inconsistent timings, the beginning of the arpeggio might be disordered. Press the notes of the chord simultaneously.

* Unless the hold setting is turned on, the arpeggio repeats as long as you hold down the keys.

* The way in which the arpeggio plays depends on how the envelope generator’s gate trigger select switch is set.



If this switch is in the GATE position, and the ADSR is set to produce a decaying sound (S=0), the sound stops when the envelope ends.

Hold

You can hold the sound even after the key is released, by pressing the [HOLD] button. The level of the sound is determined by the Sustain level (S) of the ENV.

Key Transpose

Transposition to any key is possible. By using the appropriate key , you can shift the pitch of the entire keyboard.

How to transpose

1. Hold down the [KEY TRANSPOSE] button and press any key except for the center C key.

If transpose is specified, the KEY TRANSPOSE indicator is lit.

2. To clear the transpose setting, hold down the [KEY TRANSPOSE] button and press the center “C” key.

The KEY TRANSPOSE indicator goes dark.

Selecting Assign Mode (Mono/Unison/Poly/Chord)

1. Press the [MENU] button.

2. Press the [3] button.

Controller	Function	Explanation
[1] button	MONO 	Monophonic Plays monophonically.
[2] button	UNISON 	Unison Layers multiple notes and plays them as a single note.
[3] button	POLY 	Polyphonic Plays polyphonically.
[4] button	CHORD 	Chord Layers notes together.
[5] button	(Voice 1 is always on)	(Key shift cannot be specified for voice 1)
[6] button	Turns voice 2 on/off	Available only when using chord.
[7] button	Turns voice 3 on/off	By holding down the button and pressing a key, you can specify voice key shift.
[8] button	Turns voice 4 on/off	The shift value is shown while you hold down the button.

The setting is saved in the patch.

Selecting/Saving a Pattern

Pattern select mode

1. Press the [MENU] button.

2. Press the [2] button.

Controller	Explanation
[VALUE] knob	Switches banks.
[1]–[8] buttons	Switches patterns.

Controller	Explanation
[1]–[8] buttons (Long-press)	Writes the pattern.
[MENU] button	Selects sequencer mode (normally).

Settings (Entering the SYSTEM)

1. Press the [MENU] button.

2. Press the [4] button.

3. Turn the [TEMPO/VALUE] knob to select the SYSTEM Item.

4. Press the [1] button to confirm the SYSTEM Item.

The display shows the value.

5. Use the [TEMPO/VALUE] knob to edit the value.

6. Press the [MENU] button to exit the SYSTEM.

Parameter	Screen	Explanation
NOISE mode 		Original
(stored in the patch)		Variation
LFO mode 		Original
(stored in the patch)		Advanced
Master Tune 		Specifies the master tuning. 430.0–450.0 (Hz)
MIDI channel 		Specifies the MIDI transmit/receive channel. 1–16 (channel)
		OFF
MIDI Clock Source 		Specifies the sequencer’s tempo source. Auto: If MIDI clock is being input to the MIDI IN connector or the USB port, the SH-01A’s tempo will automatically synchronize to MIDI clock (default).
		Int: The SH-01A operates at the tempo specified on the unit itself. Choose the “INTERNAL” setting if you don’t want to synchronize to an external device.
		LFO: The SH-01A operates at the tempo specified by the LFO rate.
Key velocity 		On: Actual keyboard velocity will be transmitted.
		64, 127: A fixed velocity value (64 or 127) will be transmitted regardless of how you play.
Velocity curve 		L: Sets the keyboard to a light touch. (LIGHT)
		M: Sets the keyboard to the standard touch. (MEDIUM)
		H: Sets the keyboard to a heavy touch. (HEAVY)
CC Output Mode 		OFF: Switching patches does not output CC.
		ON: Each time you switch patches, all parameters are output as CC.
CV Scale 		Adjusts the output scale of the CV signal. –63–63
CV Fine Tune 		Applies a fine adjustment to the output voltage of the CV signal. –100–100
CV Ref Note 		C0–C4 Specifies the note number (in steps of an octave) for which the output of the CV OUT jack will be 0V.
Auto off 		Off: The power does not turn off automatically.
		30 (min): The power turns off automatically after 30 minutes. * Auto Off does not occur while USB-connected.
LED DEMO 		Specifies the time after which the unit enters LED demo mode. Off: The unit does not enter LED demo mode.
		1, 3, 10 (min)

Parameter	Screen	Explanation
Ribbon controller note scale 		Sets the note scale type of the ribbon controller (default: Chromatic).
		Major
		Natural Minor
		Harmonic Minor
		Ascending Melodic Minor
		Bluenote
		Bluenote (with grace note)
		Dorian
		Mixolydian
		Diminished
		Wholetone
		Altered
		Hungarian Minor
		Insenpo
		Ryukyu
		Persian
C2 modulation hold 		If this is set to Hold, the value is held even if you take your finger off of ribbon controller C2 (default setting: Off).
		Hold

Fixed Battery Operation Mode

This mode prevents the unit from switching to bus power even if it is connected to a USB port. This allows the unit to be used even with a USB port that does not supply power.

1. While holding down the [7] button, turn on the power.

Main Specifications

Roland SH-01A: Sound Module	
Maximum Polyphony	4 voices
Power Supply	Rechargeable Ni-MH battery (AA, HR6) x 4, Alkaline battery (AA, LR6) x 4, USB bus power
Current Draw	500 mA (USB bus power)
Dimensions	300 (W) x 128 (D) x 46 (H) mm 11-13/16 (W) x 5-1/16 (D) x 1-13/16 (H) inches
Weight	965 g (including batteries) 2 lbs 3 oz
Accessories	Owner’s Manual, Leaflet “USING THE UNIT SAFELY,” Alkaline battery (AA, LR6) x 4
Options (sold separately)	Keyboard unit: K-25m Boutique Dock: DK-01

* This document explains the specifications of the product at the time that the document was issued. For the latest information, refer to the Roland website.

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