



## SH-101 PLUG-OUT Software Synthesizer

Owner's Manual

# Introduction

You must specify the MIDI Input/Output in the Setting window (p. 10) for the first time.

About settings of the DAW software you are using, see the FAQ on the Roland web site.

➔ <http://www.roland.com/support/>

In this document, SYSTEM-1/SYSTEM-1m are described as "SYSTEM-1."

## About this product

- In the interest of product improvement, the specifications and/or contents of this package are subject to change without prior notice.
- The explanations in this manual include illustrations that depict what should typically be shown by the display. Note, however, that your unit may incorporate a newer, enhanced version of the system (e.g., includes newer sounds), so what you actually see in the display may not always match what appears in the manual.

## About Trademarks

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# Screen Structure

## [PATCH] button

Selects a patch memory. The Patch Select window opens.

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## [SEND] button

Sends the memory to the SYSTEM-1.

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## [GET] button

Loads the memory currently being edited in the SYSTEM-1's PLUG-OUT mode (temporary) into the SH-101.

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\* These work only when the SYSTEM-1 is in PLUG-OUT mode.

## [PLUG-OUT] button

Installs the SH-101 into the SYSTEM-1.

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## Level meter

Displays output levels of the SH-101.

## [TUNE] knob

Adjusts the overall pitch of the SH-101.

## Patch Memory name

This area shows the name of the selected patch memory.

## Main window

This area shows various knobs and sliders that you can use to edit the sound.

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## [KEYBOARD] button

Toggles the keyboard area between visible and hidden.

## Keyboard area

Click here to produce sound. When a MIDI message is received, the corresponding key responds.



## [OPTION] button

Here you can choose skins and use MIDI Control Mapping. These settings can be made separately for each instance of the SH-101.

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## [SETTING] button

Here you can edit the MIDI settings and the direction of mouse wheel scrolling. These settings are shared by all instances of the SH-101 that you are using.

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## [HELP] button

Displays help.

## [ABOUT] button

Here you can view information about the SH-101.

# Main Window

## MODULATOR

Here you can create cyclic change (modulation) in the sound by applying vibrato (pitch modulation) or wah (filter modulation).

<b>WAVE FORM</b>	<ul style="list-style-type: none"> <li>~ (Sine wave)</li> <li>∧ (Triangle wave)</li> <li>∩ (Saw wave)</li> <li>□ (Square wave)</li> <li>⚡ (Random wave)</li> <li>NOISE (Noise)</li> </ul>
<b>VCO</b>	Allows to modulate the pitch, producing a vibrato effect.
<b>VCF</b>	Allows to modulate the VCF CUTOFF.
<b>RATE</b>	Determines the speed of the modulation.

## VCO

Here you can specify the character and the pitch of the sound.

<b>FEET</b>	Specifies the octave of the oscillator.
<b>MOD</b>	<p>Selects the source that modulates the pulse width of the pulse wave.</p> <p><b>A. ENV:</b> VCA envelope  <b>F. ENV:</b> VCF envelope  <b>LFO:</b> Modulator  <b>MAN:</b> No modulation</p>
<b>PULSE WIDTH</b>	<p>Adjusts the modulation depth when MOD is set to A. ENV, F. ENV, or LFO.</p> <p>Adjusts the pulse width when MOD is set to MAN.</p>

## SOURCE MIXER

Here you can adjust the volume of the VCO, the sub oscillator, and noise.

<b>OSC TYPE</b>	<ul style="list-style-type: none"> <li>□ Pulse/Square wave</li> <li>∩ Saw wave</li> </ul>
<b>SUB OSC</b>	<p>One or two octaves below</p> <p>Selects the type of the sub oscillator.</p> <p><b>1 OCT DOWN □ :</b> One octave below  <b>2 OCT DOWN □ :</b> Two octave below  <b>2 OCT DOWN □ :</b> Two octave below (narrow width)</p>
<b>NOISE</b>	Noise

## VCF

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

<b>FREQ</b>	Specifies the cutoff frequency of the low-pass filter.
<b>RES</b>	Resonance boosts the sound in the region of the filter's cutoff frequency.
<b>ENV</b>	Specifies the direction and amount by which the envelope changes.
<b>KEYBD</b>	Allows the filter cutoff frequency to vary according to the key that you play.
<b>A D S R</b>	Specify the envelope.

## VCA

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

<b>ENV TRIG</b>	<p>Specifies what triggers the envelope.</p> <p><b>GATE+TRIG:</b> The envelope is triggered each time you press a key.</p> <p><b>LFO:</b> If you hold down a key, the envelope is triggered repeatedly at each cycle of the modulator.</p> <p><b>GATE:</b> The envelope is triggered when you newly press a key. The envelope is not triggered when you play legato.</p>
<b>VCA MODE</b>	<p><b>ENV:</b> The sound follows the envelope specified by the ADSR settings.</p> <p><b>GATE:</b> The sound has a fixed volume as long as you hold down the key.</p>
<b>A D S R</b>	Specify the envelope.



## VOLUME

Adjusts the overall volume of the SH-101.

## PORTAMENTO

Smooths the pitch change between notes.

<b>MODE</b>	<p><b>OFF:</b> Portamento is not applied.</p> <p><b>AUTO:</b> Portamento is applied only when you play legato.</p> <p><b>ON:</b> Portamento is applied at all times.</p>
<b>TIME</b>	Adjusts the time over which the pitch change occurs.

## BEND RANGE

Specifies the amount of pitch change that occurs when pitch bend messages are received.

## TEMPO SYNC

Press this to make it light if you want to synchronize to the tempo of your host application (DAW).  
Synchronization tempo range: 40--300

## EFFECTS

Here you can adjust the effects.

<b>CRUSHER</b>	Modifies the tonal character by distorting the waveform.
<b>REVERB</b>	Adjusts the depth of the reverb.
<b>DELAY</b>	Adjusts the volume of delay sound.
<b>TIME</b>	Adjusts the delay time.

## ARPEGGIO

Causes an arpeggio to be produced when you simply hold down a chord on the keyboard.

<b>ARPEGGIO</b>	If this is lit, an arpeggio plays.
<b>ARP TYPE</b>	Selects the arpeggio variation.
<b>ARP STEP</b>	Selects the speed of the arpeggio.

# Memory and Bank

## 1. Click the [PATCH] button.

The Patch Select window opens.

### [NEW] button

Creates a new empty bank.

### [DELETE] button

Deletes the selected bank.

### [LOAD] button

Imports a bank.

### [SAVE] button

Exports a bank as a file.



The selected memory is shown in yellow.

### [SEND ALL] button

Sends all (64) memories in the bank to the SYSTEM-1.

### [GET ALL] button

Receives all (64) memories stored on the SYSTEM-1.

#### NOTE

All 64 memories are received into the currently selected bank, overwriting the previous contents of that bank. If you want to keep the state of the bank, create a new bank and receive the memories into the newly created bank (p. 6).

### [WRITE] button

Saves an edited sound as a memory in the bank.

### [RENAME] button

Renames the selected memory.

### [READ] button

Loads a memory from a bank.

## Bank

A set of 64 memories is called a "bank." By switching banks you can access a large number of memories.

A bank of memories can be saved as a file.

### Bank

Memory 01  
Memory 02  
Memory 03  
⋮  
Memory 64

## Changing to Other Bank

### 1. Click the Bank field.

The bank list window opens.

### 2. Click the bank that you want to recall.

By pressing the [▲][▼] buttons located at the right of the bank field, you can switch to the next or previous bank.

## Exporting the Bank

Here's how to export a bank as a file.

### 1. Click the [EXPORT] button.

The file name input window opens.

### 2. Enter a file name and save.

The file is written.

## Importing a Bank

### 1. Click the [IMPORT] button.

The file selection window opens.

### 2. Select a file and load it.

The bank is loaded.

## Creating/Deleting a Bank

### Creating a bank

Click the [NEW] button to create a new empty bank.

### Deleting a bank

Here's how to delete the selected bank.

1. Select a bank as described in "Changing to Other Bank" (p. 5).
2. Click the [DELETE] button.  
A confirmation screen appears.
3. Click [OK] to delete the bank.

## Renaming a Bank

1. Select a bank as described in "Changing to Other Bank" (p. 5).
2. At the left of the bank field, click ►.
3. Edit the name and press the [Return (Enter)] key.

## Memory

The SH-101 manages 64 memories as one bank.

### Loading a Memory

Here's how to load a memory from a bank. When you load a memory, its settings appear in the edit area and can be edited.

1. Click the number of the memory that you want to load.
2. Click the [LOAD] button. Or press the [Return (Enter)] key.

The memory is loaded.

\* You can also load a memory by double-clicking a memory number.

### Saving the Memory

Here's how to save an edited sound as a memory in the bank.

1. Click the number of the memory in which you want to save the sound.
2. Click the [SAVE] button.

The memory is saved in the bank.

### Renaming the Memory

1. Click the number of the memory that you want to rename.
2. Click the [RENAME] button.
3. Change the memory name. (Up to 16 letters)

### Changing the Order of the Memories

Drag the memory number to change the order of memories.

## Keyboard shortcuts

Keyboard shortcuts for the Patch Select window.

Key	Function
Command (Ctrl) + B	Changes bank
Command (Ctrl) + I	Imports bank
Command (Ctrl) + E	Exports bank
Command (Ctrl) + N	New memory
Command (Ctrl) + O	Loads memory
Command (Ctrl) + S	Saves memory
Up/Down/Left/Right	Selects memory
Space	Renames memory
Command (Ctrl) + C	Copies memory
Command (Ctrl) + V	Pastes memory
Delete *1	
delete  *2	Deletes memory
fn + delete *2	
Return (Enter)	Loads memory
Command (Ctrl) + Z	Undo
Command (Ctrl) + Shift + Z	Redo
Command (Ctrl) + U	Sends all memories to the SYSTEM-1
Esc	Closes window

\*1 Windows / \*2 Mac

# Playing with the SYSTEM-1

By connecting the SYSTEM-1 to your computer (Mac/Windows), you can use the SH-101 in conjunction with the SYSTEM-1.

## Windows

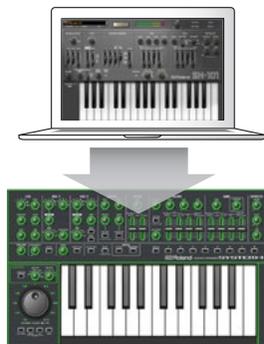
The "SYSTEM-1 CTRL" shown as a MIDI port is the port used by the SH-101. Do not use this port from your DAW.

## Plug-Out

### What is a "Plug-out"?

"Plug-out" is technology that allows a software synthesizer such as SH-101 to be installed and used in the SYSTEM-1.

- You can play the SH-101 on the SYSTEM-1 by itself, without using a computer.
- You can send the setting of selected bank to the SYSTEM-1.
- You can use the knobs and sliders of the SYSTEM-1 to edit the sound.



## Plug-Out Procedure

### 1. Click the [PLUG-OUT] button.

A confirmation message appears.

### 2. Click the [OK] button.

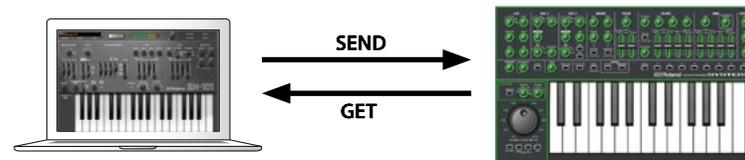
A progress bar appears, and plug-out processing begins. This takes approximately one minute.

\* If another software synthesizer is already plugged-out on the SYSTEM-1, a confirmation message appears. Click the [OK] button to continue.

#### If an error message appears, check the following items.

- Is the MIDI port specified correctly? (p. 10)
- Is the SYSTEM-1 connected to your computer?

## Send/Get Memories



### 1. Connect the SYSTEM-1 to your computer.

### 2. Turn on the MODEL [PLUG-OUT] button of the SYSTEM-1.

\* In order to send or get a memory, you must first plug-out (p. 8).

## Sending the Memory

You can send the current SH-101 memory to the SYSTEM-1 and play it on the SYSTEM-1. The sound is output from the SYSTEM-1's OUTPUT jacks.

### 3. Click the [SEND] button of the SH-101.

The memory is transmitted.

## Getting the Memory

If you've used the SYSTEM-1 to edit a memory of the plugged-out SH-101, here's how to load that memory into the SH-101.

### 3. Click the [GET] button of the SH-101.

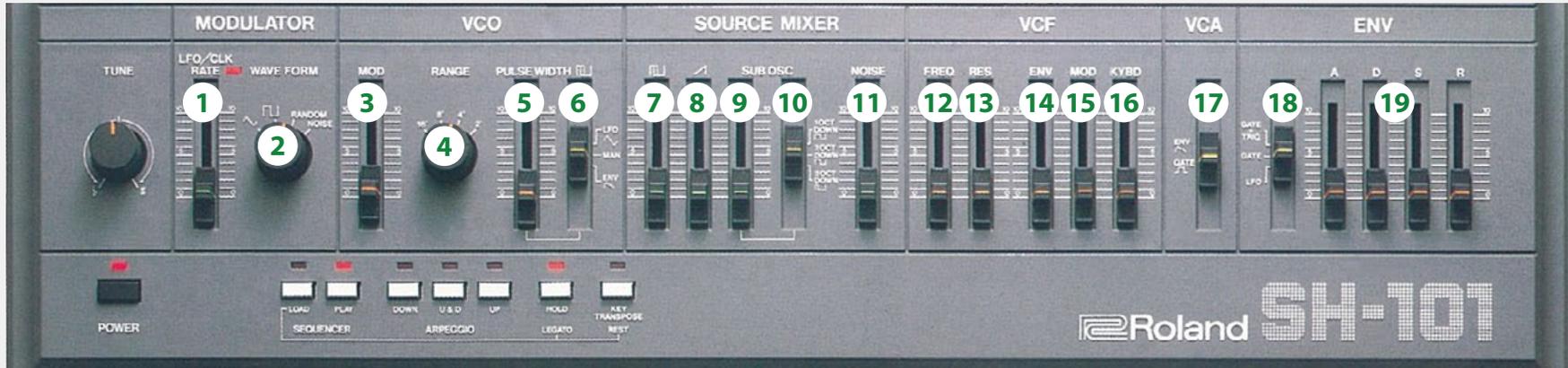
The memory is loaded.

#### If an error message appears, check the following items.

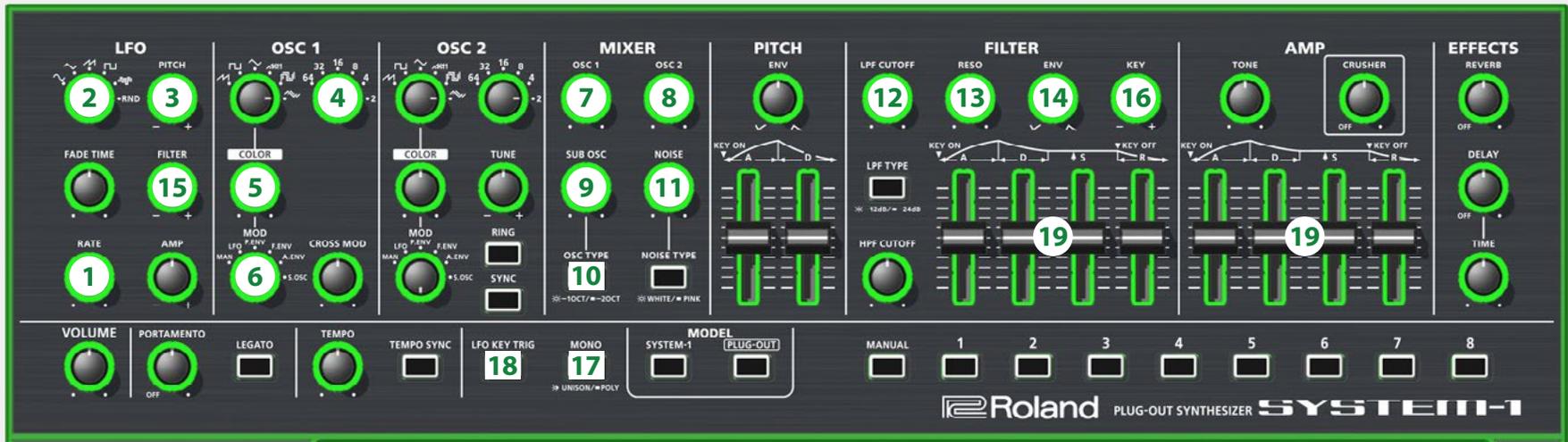
- Is the MIDI port specified correctly? (p. 10)
- Is the SYSTEM-1 connected to your computer?
- Is the SYSTEM-1's MODEL [PLUG-OUT] button turned on?
- Is the SH-101 plugged-out on the SYSTEM-1? (p. 8)

# SH-101 Controller Map

SH-101 (Original hardware)



SYSTEM-1 (Hardware)

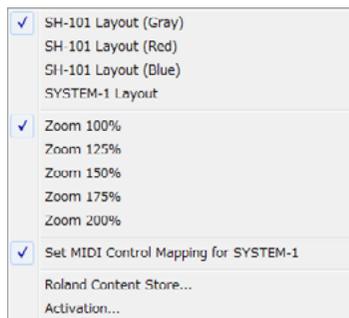


Controls	Lit	Unlit	Blink
10	1 OCT DOWN $\square$	2 OCT DOWN $\square$	2 OCT DOWN $\square$
17	ENV	GATE	-
18	LFO	GATE	GATE+TRIG

# Settings

## Option

1. Click the [OPTION] button.



2. Select items.

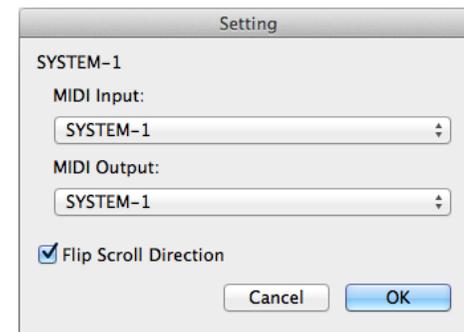
A ✓ is shown for the selected item.

Item	Explanation
SH-101 Layout (Gray) SH-101 Layout (Red) SH-101 Layout (Blue) SYSTEM-1 Layout	Changes the layout of the controllers in the main window. <b>SH-101 Layout:</b> The controllers are laid out as they are on the SH-101 (original). You can also change the color. <b>SYSTEM-1 Layout:</b> The controllers are laid out as they are on the SYSTEM-1.
Zoom	Changes the size of the main window.
Set MIDI Control Mapping for SYSTEM-1	Check this item if you want to use the SYSTEM-1 as a control surface for the SH-101. Here you can make MIDI mapping settings for the buttons and sliders.
Activation...	Activate the SH-101.

## Setting

1. Click the [SETTING] button.

The Setting window opens.



2. Edit the parameters.

Parameter	Explanation
MIDI Input	Choose "SYSTEM-1" (Mac OS) or "SYSTEM-1 CTRL" (Windows).
MIDI Output	
Flip Scroll Direction	Inverts the direction of rotation when using the mouse wheel to edit a value.

3. Click the [OK] button.

\* Your changes are remembered.

\* If multiple instances of the SH-101 are running, these settings apply to all instances.

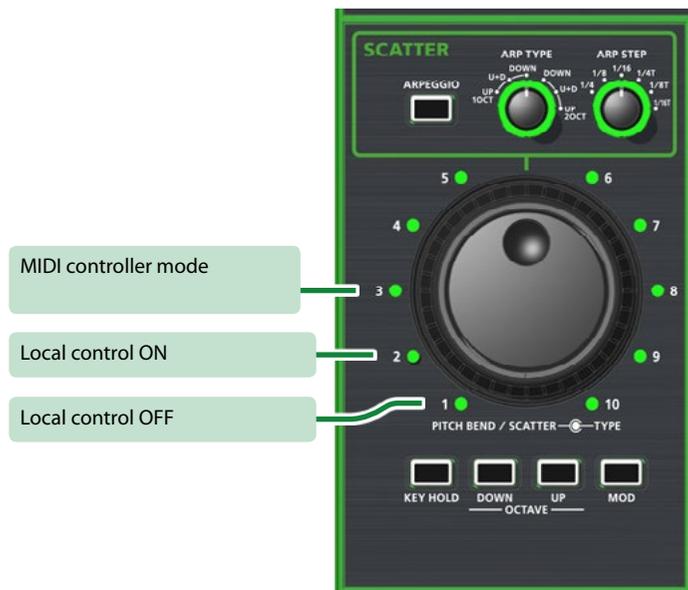
## Setting for the SYSTEM-1

When you want to play the SH-101's sound (plug-in) with your SYSTEM-1, set the SYSTEM-1 to the MIDI controller mode.

Once you set to MIDI controller mode, SYSTEM-1's internal sound can not be played, and the SYSTEM-1 can play the SH-101's sound only.

\* These settings are not available in SYSTEM-1m.

1. Turn the power on of the SYSTEM-1.
2. While holding down the MODEL [SYSTEM-1] and [PLUG-OUT] buttons, use the SCATTER [TYPE] dial to set to MIDI controller mode.



Setting	Explanation
<b>Local Control ON</b>	Choose this when using the SYSTEM-1 on its own. (Default setting)
<b>Local Control OFF</b>	Choose this when using the SYSTEM-1 in conjunction with your DAW. * If the SYSTEM-1 is used by itself with this setting, playing the keyboard will not produce sound.
<b>MIDI Controller Mode</b>	Choose this if you're using the SYSTEM-1 as a MIDI controller. * Playing the keyboard will not produce the SYSTEM-1's internal sound. * The SYSTEM-1's internal sound is not produced even if the SYSTEM-1 receives MIDI.