



## SYSTEM-1 Software Synthesizer

Owner's Manual

# Introduction

When you use the SYSTEM-1 Software Synthesizer for the first time, you must specify the MIDI Input/Output in the Setting window (p. 10).

For details on the settings for the DAW software that you're using, refer to the DAW's help or manuals.

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 (temporary) into the  
SYSTEM-1 Software Synthesizer.

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## Level meter

Displays output levels.

## [OPTION] button

Here you can make MIDI  
Control Mapping settings.  
These settings can be made  
separately for each instance of the  
SYSTEM-1 Software Synthesizer.

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## [SETTING] button

Here you can edit the MIDI  
settings and the direction of  
mouse wheel scrolling (Only Mac).  
These settings are shared by  
all instances of the SYSTEM-1  
Software Synthesizer that you are  
using.

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## [ABOUT] button

Here you can view  
information about the  
SYSTEM-1 Software Synthesizer.

## [HELP] button

Displays help.

## [TUNE] knob

Adjusts the overall pitch of the  
SYSTEM-1 Software Synthesizer.

## 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.



# Main Window—1

## OSC 1/OSC 2

Here you can select the waveform that determines the character of the sound, and specify its pitch. The SYSTEM-1 Software Synthesizer has two oscillators (OSC 1 and OSC 2).

Wave knob	Selects the waveform that is the basis of the sound. Use the [A]/[B] buttons to select a variation of the waveform.		Octave (feet) knob	Specifies the octave of the oscillator.
	A	(Sawtooth wave),  (Square wave),  (Triangle wave),  (Sawtooth wave 2),  (Square wave 2),  (Triangle wave 2)	[CROSS MOD] knob	Modifies the OSC 1 frequency according to the OSC 2 waveform. Turning the knob toward the right makes OSC 1 become a more complex sound, allowing you to create metallic sounds or sound effects.
B	(Noise Saw),  (Logic Operation),  (FM),  (FM + Sync),  (Vowel),  (CB)	[TUNE] knob	Adjusts the pitch of the oscillator. The left side small knob sets the Coarse Tune (semitones). The right side knob sets the Fine Tune.	
[COLOR] knob	The result depends on the waveform.		[RING] button	This is a ring modulator. It generates a complex waveform by multiplying OSC 1 and OSC 2.
[MOD] knob	Selects the source that modulates the [COLOR] knob.		[SYNC] button	This is oscillator sync. It generates a complex waveform by forcibly resetting OSC 2 to the beginning of its cycle in synchronization with the OSC 1 frequency.
	MAN	The sound is determined by the position of the [COLOR] knob. It will not vary over time.		
	LFO	The sound varies over time at the rate specified in the LFO section.		
	P. ENV	The sound changes over time according to the envelope of the PITCH section.		
	F. ENV	The sound changes over time according to the envelope of the FILTER section.		
	A. ENV	The sound changes over time according to the envelope of the AMP section.		
S. OSC	The sound changes over time according to the frequency of the sub-oscillator.			

## LFO

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

Wave knob	Selects the LFO waveform. (Sine wave),  (Triangle wave),  (Sawtooth wave),  (Square wave),  (Sample and Hold),  (Random wave)
[FADE TIME] knob	Specifies the time from when the tone sounds until the LFO reaches its maximum amplitude.
[RATE] knob	Determines the speed of the LFO.
[PITCH] knob	Allows the LFO to modulate the pitch, producing a vibrato effect.
[FILTER] knob	Allows the LFO to modulate the FILTER CUTOFF (cutoff frequency).
[AMP] knob	Allows the LFO to modulate the AMP LEVEL (volume), producing a tremolo effect.

## MIXER

Here you can adjust the volume of OSC 1, OSC 2, the sub-oscillator (an oscillator that produces a sound one or two octaves lower), and noise.

[OSC 1] knob	Adjusts the volume of the OSC 1.
[OSC 2] knob	Adjusts the volume of the OSC 2.
[SUB OSC] knob	Adjusts the volume of the sub oscillator.
[OSC TYPE] button	Selects the type of the sub oscillator. <b>Lit:</b> Sound one octave below, <b>Unlit:</b> Sound two octaves below
[NOISE] knob	Adjusts the volume of the noise.
[NOISE TYPE] button	Selects the type of the noise. <b>Lit:</b> white noise, <b>Unlit:</b> pink noise

## PITCH

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

[ENV] knob	If this knob is turned toward the right, the pitch initially becomes higher and then returns to the pitch of the key you pressed. If this knob is turned toward the left, the pitch initially becomes lower and then returns to the pitch of the key you pressed.
[A] slider	These sliders operate similarly to the [A D S R] sliders of the AMP section (they affect the pitch rather than the volume).
[D] slider	

## FILTER

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

[LPF CUTOFF] knob	Specifies the cutoff frequency of the low-pass filter. Frequency components above the cutoff frequency are cut, making the sound mellower.	[KEY] knob	Allows the filter cutoff frequency to vary according to the key that you play. If the knob is turned toward the right, the cutoff frequency becomes higher as you play higher notes. If the knob is turned toward the left, the cutoff frequency becomes lower as you play lower notes.
[LPF TYPE] button	Selects the slope (steepness) of the low-pass filter. <b>Lit:</b> -12 dB, <b>Unlit:</b> -24 dB		[A] slider
[HPF CUTOFF] knob	Specifies the cutoff frequency of the high-pass filter. Frequency components below the cutoff frequency are cut.	[D] slider	
[RESO] knob	Resonance boosts the sound in the region of the filter's cutoff frequency. Higher settings produce stronger emphasis, creating a distinctly "synthesizer-like" sound.	[S] slider	
[ENV] knob	This knob specifies the depth and direction of the cutoff frequency change produced by the [A], [D], [S], and [R] sliders. If the knob is turned toward the right, the cutoff frequency moves in the upward direction. If the knob is turned toward the left, the cutoff frequency moves in the downward direction.	[R] slider	

## AMP

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

[TONE] knob	Adjusts the brightness of the sound.
[CRUSHER] knob	Modifies the tonal character by distorting the waveform.
[A] slider (Attack time)	Specifies the time from the moment you press the key until the maximum volume is reached.
[D] slider (Decay time)	Specifies the time from when the maximum volume is reached, until it decays to the sustain level.
[S] slider (Sustain level)	Specifies the volume level that will be maintained from when the attack and decay times have elapsed until you release the key.
[R] slider (Release time)	Specifies the time from when you release the key until the volume reaches its minimum value.



# Main Window-2

## VOLUME

Adjusts the volume of each memory.

## 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

## ARPEGGIO

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

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

## SCATTER

This is a function that applies various changes to the arpeggio performance, creating musical grooves.

\* The Scatter function works only when the arpeggio on.

SCATTER TYPE	Selects the scatter type (1–10).
SCATTER DEPTH	Adjusts the scatter depth.

## EFFECTS

Here you can adjust the amount of reverb and delay.

[REVERB] knob	Adds reverberation.
[DELAY] knob	Adjusts the volume of delay sound.
[TIME] knob	Adjusts the delay time (the time by which the sound is delayed).

## KEY HOLD

You can make notes continue sounding even after you take your hand off the keyboard.

## OCTAVE

You can shift the keyboard's pitch range in steps of one octave (-3+3).

## PORTAMENTO

Adjusts the time over which the pitch changes.

## LEGATO

Portamento is applied only when you play legato (pressing the next key before releasing the previous key).

## LFO KEY TRIGGER

Specifies whether the LFO cycle will be synchronized to begin when the key is pressed (ON) or not (OFF).

## KEY ASSIGN MODE

UNISON	The synth will play all sounds in unison (UNISON mode).
MONO	The synth will play monophonically (single notes).
POLY	The synth will play polyphonically (four notes).



# 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. 7).

### [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. 6).
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. 6).
2. At the left of the bank field, click ►.
3. Edit the name and press the [Return (Enter)] key.

## Memory

The SYSTEM-1 Software Synthesizer 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

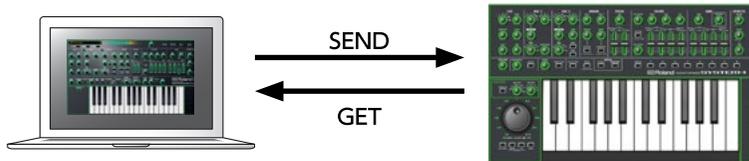
Key	Function
Command (Ctrl) + B	Changes bank
Command (Ctrl) + I	Imports bank
Command (Ctrl) + E	Exports bank
Command (Ctrl) + N	New memory
Command (Ctrl) + O	Loads memory
Command (Ctrl) + S	Saves memory
Up/Down/Left/Right	Selects memory
Space	Renames memory
Command (Ctrl) + C	Copies memory
Command (Ctrl) + 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

Memories that you edit using the SYSTEM-1 Software Synthesizer can be sent (SEND) to the SYSTEM-1 and played.

You can also receive (GET) memories from the unit into the SYSTEM-1 Software Synthesizer and edit them.



## Send Memories

Here's how memories edited using the SYSTEM-1 Software Synthesizer can be sent to the SYSTEM-1.

### Sending One Memory

Here's how to send the memory in the SYSTEM-1 Software Synthesizer to the SYSTEM-1.

**1. On the SYSTEM-1, turn the MODEL [SYSTEM-1] button on.**

\* If you use the SYSTEM-1m, turn off the [PLUG-OUT] button.

The SYSTEM-1 is in SYSTEM-1 mode.

**2. Click the [SEND] button.**

The memory is sent.

### Sending All Memories

Here's how to send all (64) memories in the bank to the SYSTEM-1.

**NOTE**

The 64 memories are transmitted in a single operation. If the SYSTEM-1 contains any memories that you want to keep, use the "Get Memories" (p. 9) procedure to receive these memories into the computer and save them before you continue.

**1. As described in "Changing to Other Bank" (p. 6), select the bank that contains the memories that you want to send.**

**2. Click the [SEND ALL] button.**

The 64 memories are sent.

## Get Memories

Here's how to receive memories from the SYSTEM-1 into the SYSTEM-1 Software Synthesizer.

### Receiving One Memory

Here's how the memory that's recalled (being edited) on the SYSTEM-1 can be received into the SYSTEM-1 Software Synthesizer.

**1. On the SYSTEM-1, press the MODEL [SYSTEM-1] button.**

\* If you use the SYSTEM-1m, turn off the [PLUG-OUT] button.

The SYSTEM-1 is in SYSTEM-1 mode.

**2. Click the [GET] button.**

The memory is received.

### Receiving All Memories

Here's how all (64) memories stored on the SYSTEM-1 can be received.

**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. 7).

**1. Specify the bank that will receive the memories.**

\* If you want to create a new bank to receive the memories, press the [NEW] button. If you want to receive the memories into a specific existing bank, specify the bank as described in "Changing to Other Bank" (p. 6).

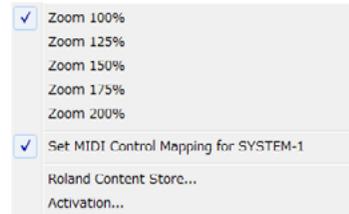
**2. Click the [GET ALL] button.**

The 64 memories are received.

# Settings

## Option

1. Click the [OPTION] button.



2. Select items.

A ✓ is shown for the selected item.

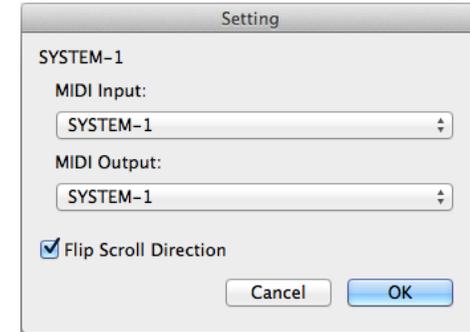
Item	Explanation
Zoom	Changes the size of the main window.
Set MIDI Control Mapping for SYSTEM-1	Check this item if you want to use the SYSTEM-1 as a control surface for the SYSTEM-1 Software Synthesizer. Here you can make MIDI mapping settings for the buttons and sliders.
Activation...	Activates the SYSTEM-1 Software Synthesizer.

## Setting

1. Click the [SETTING] button.

The Setting window opens.

\* Flip Scroll Direction is only on Mac.



2. Edit the parameters.

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

3. Click the [OK] button.

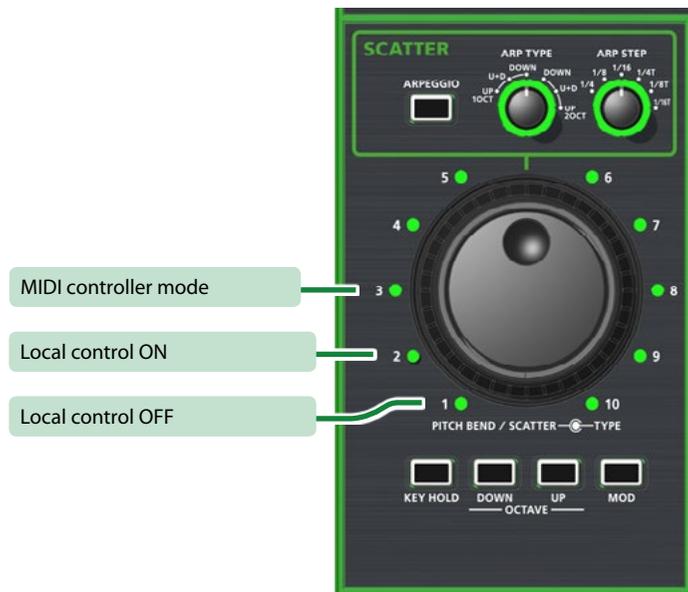
\* Your changes are remembered.

## Setting for the SYSTEM-1

Once you set to MIDI controller mode, SYSTEM-1's internal sound can not be played, and the SYSTEM-1 can play the SYSTEM-1 Software Synthesizer'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
MIDI Controller Mode	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.
Local Control ON	Choose this when using the SYSTEM-1 on its own. (Default setting)
Local Control OFF	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.