Roland

SYSTEM-100 PLUG-OUT Software Synthesizer

Owner's Manual

Introduction

When you use the SYSTEM-100 for the first time, you must specify the MIDI Input/Output in the Setting window (p. 12).

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

The SYSTEM-1 and SYSTEM-1m are described as SYSTEM-1 in this manual.

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

Screen Structure

Patch Memory name
This area shows the name of the selected patch memory.

[PATCH] button
Selects a patch memory.
The Patch Select window opens.
p. 8

Sound section
This area shows modules such as LFO and VCO. For details on corresponding controllers when you plug-out, refer to "Module List."
p. 14

[SIGNAL FLOW] button
Shows the signal flow.

[HIDE CABLES] button
Turns off cable operations, allowing you to operate knobs or sliders that were hidden under cables.

ROUTING MATRIX
In this matrix, the output jacks of each module are placed in vertical columns, and the input jacks are placed in horizontal rows. Click an intersection to change the corresponding connection.

[VOLUME] knob
Adjusts the overall volume of the SYSTEM-100.

[KEYBOARD] button
Toggles the keyboard area between visible and hidden.

[SEND] button
Sends the memory to the SYSTEM-1.

[GET] button
Loads the memory currently being edited in the SYSTEM-1's PLUG-OUT mode (temporary) into the SYSTEM-100.

* These work only when the SYSTEM-1 is in PLUG-OUT (SYSTEM-100) mode.

p. 11

p. 11

[PLUG-OUT] button
Plug-outs the SYSTEM-100.

Level meter
Displays output levels of the SYSTEM-100.

[TUNE] knob
Adjusts the overall pitch of the SYSTEM-100.

[BEND RANGE] knob
Specifies the amount of pitch change that occurs when pitch bend messages are received.

[TEMPO SYNC] button
Press this to make it light if you want to synchronize to the tempo of your host application (DAW).
Synchronization tempo range: 40–300

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

[KEY ASGN] switch
Specifies how the assigner operates.

1	Lowest key has priority.
2	Later key has priority.

ARPEGGIO section
Here you can make arpeggio settings.

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

[OPTION] button
Here you can choose skins and use MIDI Control Mapping.
These settings can be made separately for each instance of the SYSTEM-100.
p. 12

[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-100 that you are using.
p. 12

[ABOUT] button
Here you can view information about the SYSTEM-100.

[HELP] button
Displays help.

SCATTER section
Here you can make settings for the Scatter effect on arpeggio performance. To use Scatter, make the [ARPEGGIO] button light.

SCATTER TYPE	Selects a type of scatter.
SCATTER DEPTH	Adjusts the amount of scatter.
KEY HOLD	If this is lit, 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.

Modules and the Overlay Display

SYSTEM-100 has an overlay display function that lets you see how modules without cable connections are internally connected. The overlay display shows internal connections as yellow arrows.
To display the overlay, press the [SIGNAL FLOW] button.

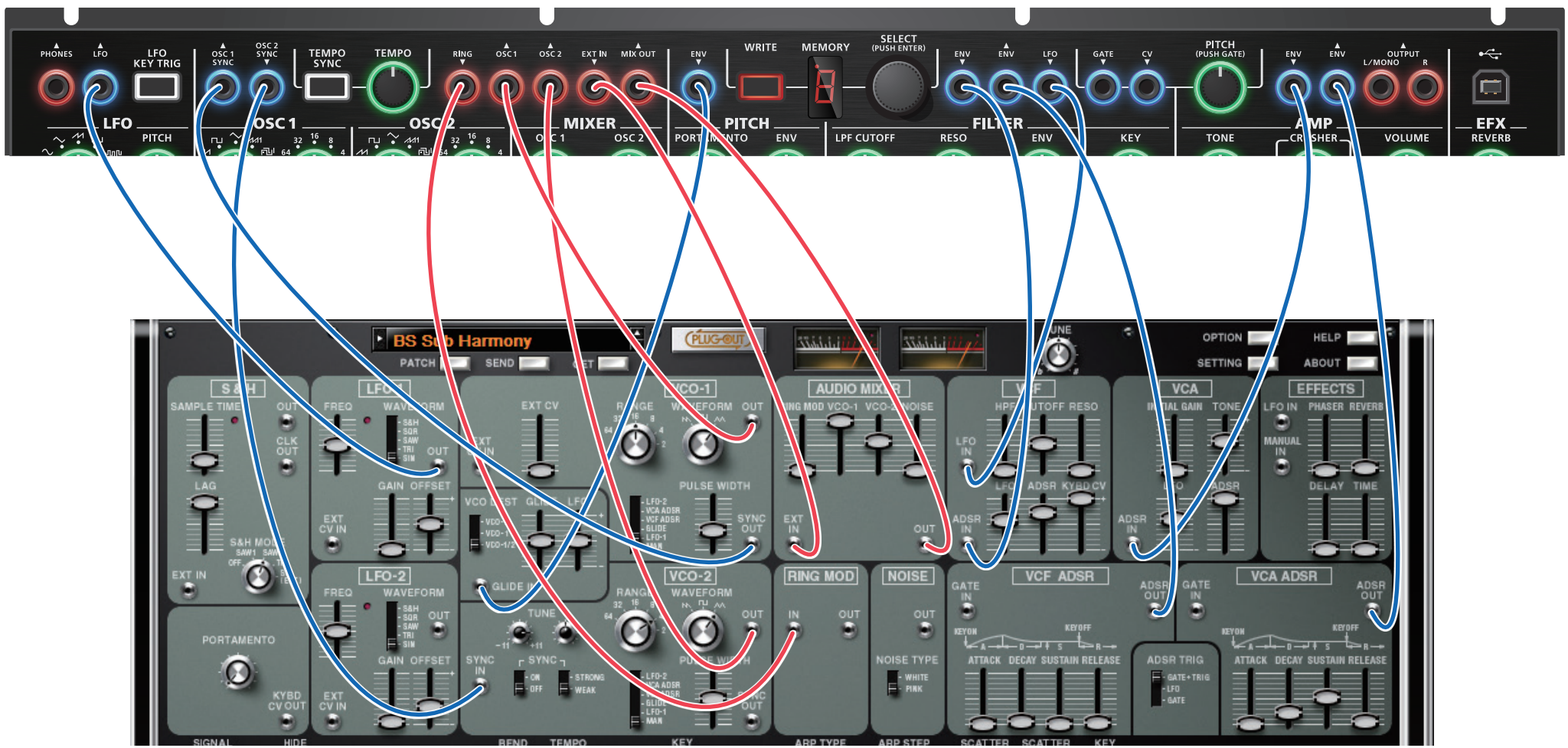
SYSTEM-100 Input/Output Jacks and SYSTEM-1m Jack Area

SYSTEM-100 modules provide input/output jacks. You can create sounds by using these jacks to connect modules to each other.
Some of the input/output jacks are linked with the jack area of the SYSTEM-1m, allowing you to control SYSTEM-100 using CV/GATE input from an external device.

NOTE

If a patch cable is connected to an input jack of the SYSTEM-1m, the input signal to the SYSTEM-1m takes priority and the input signal to the corresponding SYSTEM-100 input jack is ignored.

SYSTEM-1m



SYSTEM-100

Making Connections and Editing Parameters

Be aware of the following points when connecting modules.

NOTE

- Output jacks can be connected to input jacks. You cannot connect an input jack to another input jack, nor an output jack to another output jack.
- You can connect cables from one output jack to multiple different input jacks.
- One cable can be connected to an input jack.
- If a patch cable is connected to an input jack of the SYSTEM-1m, the input signal to the SYSTEM-1m takes priority, and the input signal to the corresponding input jack of SYSTEM-100 is ignored.

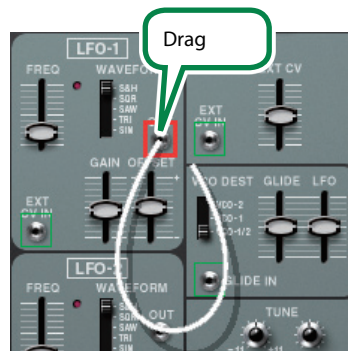
Input signal priority order

SYSTEM-1m input jack > SYSTEM-100 input jack > SYSTEM-100 internal connection

Connecting a Cable

1. Move the cursor to the input or output jack that you want to connect, and drag.

2. Drop the end of the cable on the desired output or input jack.



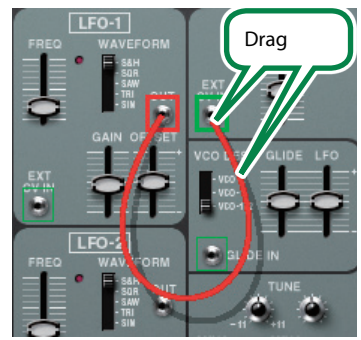
Changing a Connection

1. Move the cursor to the input/output jack or to the middle of the cable whose connection you want to change, and drag.

The cable color changes to highlighted.

* If multiple cables are connected from an output jack, you can click the jack to select a different cable.

2. Drop the end of the cable on the desired output/ input jack.

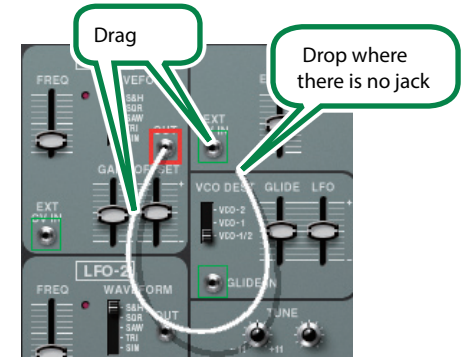


Disconnecting

1. Move the cursor to the input/output jack or to the middle of the cable that you want to disconnect, and drag.

The cable color changes to highlighted.

* If multiple cables are connected from an output jack, you can click the jack to select a different cable.



2. Drop the end of the cable where there is no jack.

The connection is broken and the cable disappears.

* If the jack has an internal connection, it returns to the default state when you disconnect the cable.

* In the "ROUTING MATRIX" (p. 7), multiple connections can be disconnected or returned to their default state by holding down the [Shift] key and dragging to enclose an area of the red shorting pins.

ROUTING MATRIX

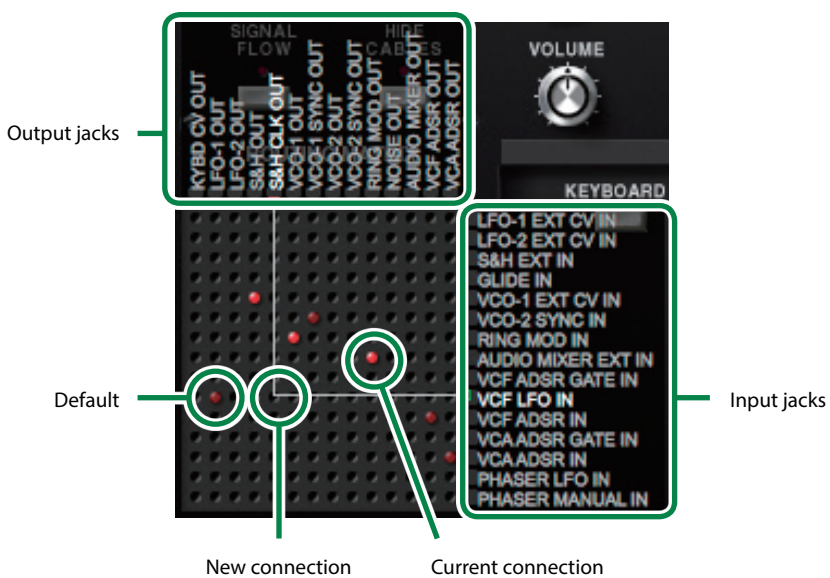
SYSTEM-100 lets you make connections by using the ROUTING MATRIX, which works like a routing switcher.

In the ROUTING MATRIX, the output jacks of the modules are assigned to the vertical columns, and the input jacks are assigned to the horizontal rows. You can make a connection by clicking an intersection. When a connection exists, a red shorting pin is shown.

If an input jack is already connected, and you click the intersection of that input jack with a different output jack, the connection changes to the new connection (the last click takes priority).

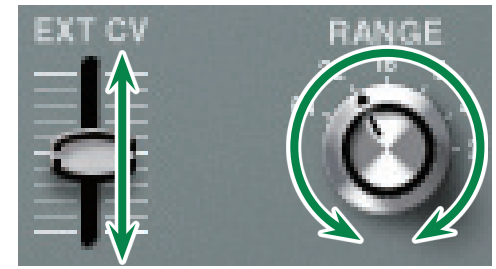
If you click a current connection (a red shorting pin), that connection is disconnected. This lets you return the connection to its default state.

* If a jack has an internal connection, it returns to its default state (a dim red shorting pin) when disconnected.
* By holding down the [Shift] key and dragging to enclose multiple shorting pins, you can disconnect multiple connections or return them to their default state.



Operating Knobs or Sliders

To change the parameter value of a knob or slider, drag around the perimeter of the knob or drag the slider up or down. When you drag, the value is shown below the knob or slider.

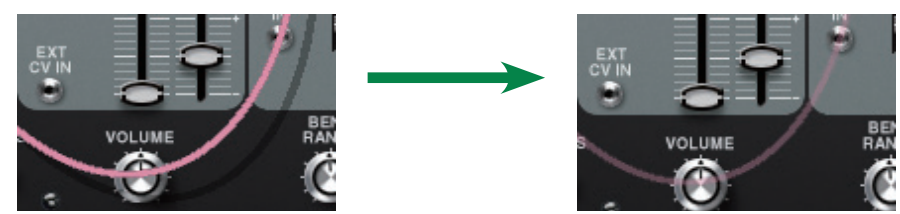


Slider Knob

* If you hold down the [SHIFT] key of your computer while you drag, or if you drag at a distance from the controller, the value changes in smaller amounts, allowing you to make fine adjustments.
* If you click the controller while holding down the [Command (CTRL)] key of your computer, it returns to its default state.

Turning Cable Operation On/Off

When you make a connection, the cable may overlap a knob or slider. If you want to operate that knob or slider, turn off cable operation by making the [HIDE CABLES] button light. The cable color turns semi-transparent.



[HIDE CABLES] button Off (unlit) [HIDE CABLES] button On (lit)

Changing the Cable Color

You can change the cable color to your taste. To change the cable color, double-click the middle of a cable.

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.

[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. 9).

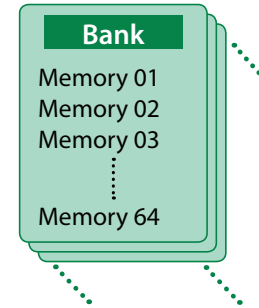
[WRITE] button
Saves an edited sound as a memory in the bank.

[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.



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. 8).**
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. 8).**
2. **At the left of the bank field, click ▶.**
3. **Edit the name and press the [Return (Enter)] key.**

Memory

The SYSTEM-100 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** **fn + delete *2**	Deletes memory
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 SYSTEM-100 in conjunction with the SYSTEM-1.

Windows

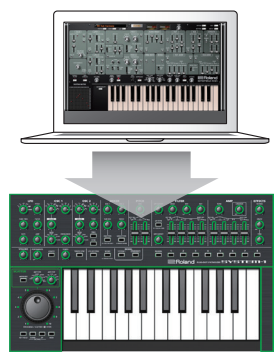
The "SYSTEM-1 CTRL" shown as a MIDI port is the port used by the SYSTEM-100.
Do not use this port from your DAW.

Plug-Out

What is a "Plug-out"?

"Plug-out" is technology that allows a software synthesizer such as SYSTEM-100 to be installed and used in the SYSTEM-1.

- You can play the SYSTEM-100 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.

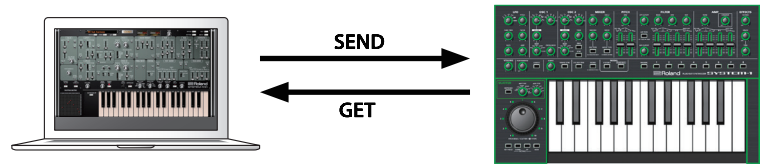
A progress bar appears, and plug-out processing begins. This takes approximately one minute.

* 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. 12)
- 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. 11).

Sending the Memory

You can send the current SYSTEM-100 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 SYSTEM-100.

The memory is transmitted.

Getting the Memory

If you've used the SYSTEM-1 to edit a memory of the plugged-out SYSTEM-100, here's how to load that memory into the SYSTEM-100.

3. Click the [GET] button of the SYSTEM-100.

The memory is loaded.

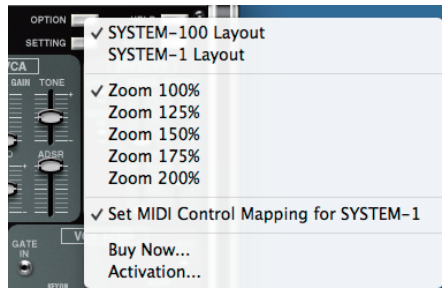
If an error message appears, check the following items.

- Is the MIDI port specified correctly? (p. 12)
- Is the SYSTEM-1 connected to your computer?
- Is the SYSTEM-1's MODEL [PLUG-OUT] button turned on?
- Is the SYSTEM-100 plugged-out on the SYSTEM-1? (p. 11)

Settings

Option

1. **Click the [OPTION] button.**



2. **Select items.**

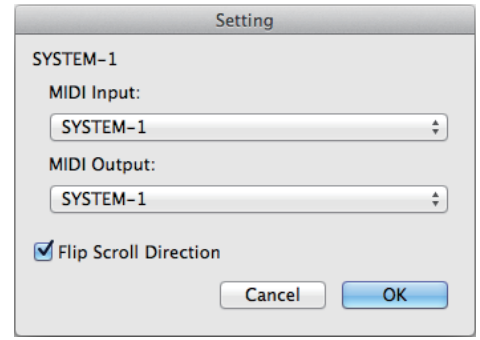
A ✓ is shown for the selected item.

Item	Explanation
SYSTEM-100 Layout **SYSTEM-1 Layout**	Changes the layout of the controllers in the main window. **SYSTEM-100 Layout:** This layout is based on the 101 unit of the (original) SYSTEM-100, with the 102 unit's modules mixed in. **SYSTEM-1 Layout:** 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 SYSTEM-100. Here you can make MIDI mapping settings for the buttons and sliders.
Activation...	Activates the SYSTEM-100.

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.

* If multiple instances of the SYSTEM-100 are running, these settings apply to all instances.

Setting for the SYSTEM-1

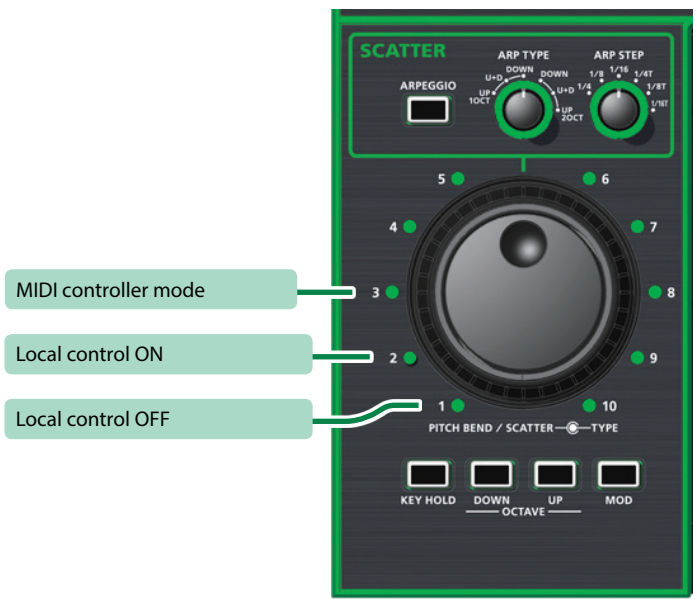
When you want to play the SYSTEM-100's sound (plug-in) with your SYSTEM-1, set the SYSTEM-1 to the MIDI controller mode.

Once you set to MIDI controller mode, SYSTEM-1's internal sound can not be played, and the SYSTEM-1 can play the SYSTEM-100'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.

About the SYSTEM-100

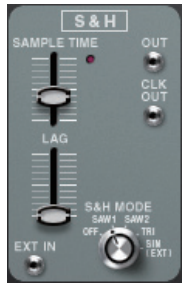
The SYSTEM-100 went on sale in 1975 as a "total system synthesizer" that allows you to select and combine its constituent units.

A wide variety of sounds could be created by using patch cables to connect the modules of the 101 basic unit and the 102 expander unit, and this unit played an important role as an ideal synthesizer for studio recording.

Now, thanks to ACB technology, the 101 unit and 102 unit have been reborn as the SYSTEM-100 Plug-Out Synthesizer.

List of Modules

S&H (SAMPLE & HOLD)



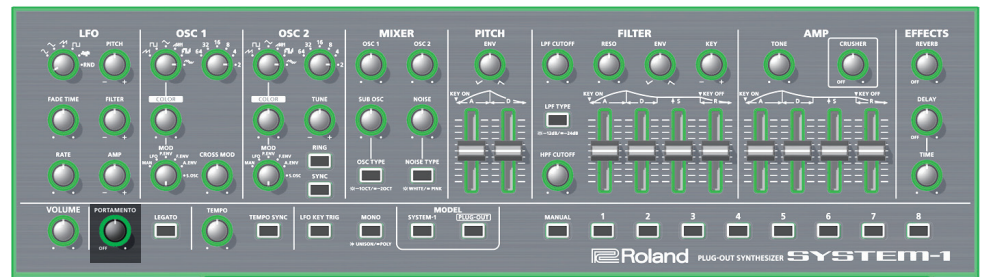
Parameter	Explanation
SAMPLE TIME	Specifies the rate (clock) at which sample and hold occurs.
LAG	Smooths the change in the signal.
EXT IN jack	Inputs a signal to sample and hold. * If you want to sample and hold the input signal from the EXT IN jack, set S&H MODE to SIN (EXT).
S&H MODE	• Selects the input signal to sample and hold. • OFF: No input. • SAW1: Sawtooth wave generated by LFO-1. • SAW2: Inverse of the sawtooth wave generated by LFO-1. • TRI: Triangle wave generated by LFO-1. • SIN (EXT): Sine wave generated by LFO-1, or the signal input from the EXT IN jack (if connected to EXT IN).
OUT jack	Outputs the signal generated by S&H.
CLK OUT jack	Outputs the rate (clock) signal specified by SAMPLE TIME.

* The S&H module has not the corresponding controller.

PORTAMENTO

Parameter	Explanation
PORTAMENTO	Adjusts the time over which the pitch change occurs.
KYBD CV OUT jack	Outputs the pitch to be sounded. The PORTAMENTO effect is added to this.

Corresponding controllers

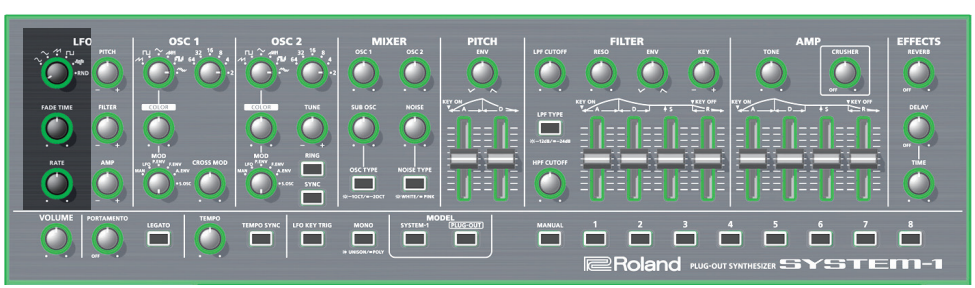


* Once you set to SYSTEM-1 Layout (p. 12) mode, the controllers are laid out as they are on the SYSTEM-1.
* If you use the SYSTEM-1m, the corresponding controller (PORTAMENTO knob) is located in PITCH section.

LFO-1 / LFO-2 (LOW FREQUENCY OSCILLATOR)

Parameter	Explanation
FREQ	Specifies the speed of modulation.
EXT CV IN jack	The signal that is input here applies change to the modulation of LFO-1 and LFO-2.
WAVE FORM	Selects the signal generated by the LFO. • SIN: A sine wave is generated. • TRI: A triangle wave is generated. • SAW: A sawtooth wave is generated. • SQR: A square wave is generated. • S&H: A signal generated by S&H (same as the S&H OUT jack) is output.
GAIN	Adjusts the gain of the signal that's input to the EXT CV IN jack.
OFFSET	Offsets the modulation speed. If TEMPO SYNC is off, the speed is offset in 50-cent units. If it is on, the speed is offset in units that synchronize with the tempo.
OUT jack	Output the signal generated by LFO-1 and LFO-2.

Corresponding controllers



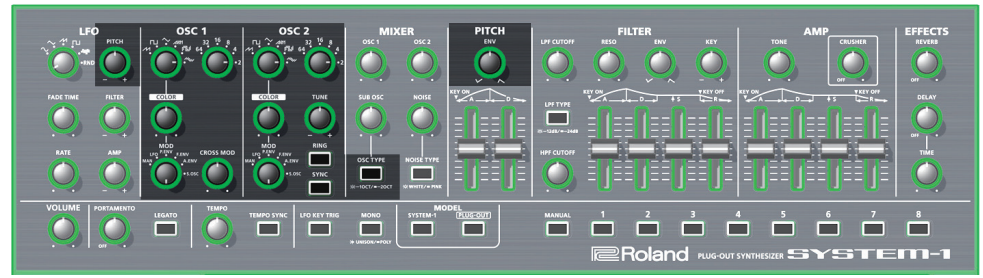
* Once you set to SYSTEM-1 Layout (p. 12) mode, the controllers are laid out as they are on the SYSTEM-1.

* The LFO-2 module has no corresponding controller.

VCO-1 / VCO-2 (VOLTAGE CONTROLLED OSCILLATOR)

Parameter	Explanation
EXT CV IN jack	Inputs the signal that modulate the pitch of VCO-1. If there is no input (connection) to the EXT CV IN jack, the signal generated by VCO-2 is used to modulate the pitch.
EXT CV	Adjusts the pitch modulation amount for VCO-1.
RANGE	Specifies the octave. * On the original SYSTEM-100 (MODEL-101/MODEL-102), there was a knob named "FREQUENCY" that could adjust the frequency continuously (10 Hz–10 kHz). However on the SYSTEM-100 PLUG-OUT Software Synthesizer, you can specify the frequency range (64, 32, 16, 8, 4, 2).
WAVEFORM	Selects the signal generated by the LFO. • SAW: A sawtooth wave is generated. • SQR: A square wave is generated. • TRI: A triangle wave is generated.
PULSE WIDTH (Switch)	When WAVEFORM is set to SQR (square wave), this switch selects the waveform whose pulse width is varied. If you select MAN, only PULSE WITH (slider) has an effect.
PULSE WIDTH (Slider)	Adjusts the pulse width of the square wave when WAVEFORM is set to SQR (square wave).
OUT jack (VCO-1)	Outputs the signal generated by VCO-1.
SYNC OUT jack (VCO-1)	Outputs the sync signal generated by VCO-1.
DESTINATION	Selects the VCO that is affected by the GLIDE slider and LFO slider. • VCO-1+VCO-2: The effect applies to both VCO-1 and VCO-2. • LFO2: The effect applies to VCO-2. • LFO1: The effect applies to VCO-1.
GLIDE	Adjusts the pitch change at note-on.
GLIDE IN jack	The signal input here can be used to change the pitch. If nothing is connected, an internal envelope built into GLIDE changes the pitch. If a signal is being input to the SYSTEM-1's PITCH ENV jack, that signal takes priority and the input signal to the GLIDE IN jack is ignored.
VCO LFO	Uses LFO-1 to change the pitch.
COARSE TUNE (Left side knob)	Adjusts the VCO-2 pitch in semitone steps.
FINE TUNE (Right side knob)	Makes fine adjustments to the VCO-2 pitch.
SYNC (Left side switch)	Switches whether the VCO-2 oscillation frequency is synchronized. * If a signal is being input to the SYNC IN jack, the oscillation frequency synchronizes to that input signal. * If a signal is being input to the SYSTEM-1m's OSC2 SYNC IN ▼ jack, that input signal takes priority, and the input signal to the SYNC IN jack is ignored. * Depending on the signal, synchronization might not occur in some cases.
SYNC (Right side switch)	Selects how VCO-2 will synchronize. • STRONG: VCO-2 always synchronizes to the fall of the SYNC OUT signal or the input signal (waveform) that is connected to the input jack. Choose this if you want to synchronize at overtone intervals. • WEAK: VCO-2 synchronizes to integer multiples (such as 2/3, 3/4, 4/3, 1/1, 3/2) of the VCO-1 SYNC OUT signal or the connected input signal (waveform).
SYNC IN jack	Inputs the signal that synchronizes VCO-2. If there is no input to the SYNC IN jack, VCO-2 synchronizes to the SYNC OUT signal of VCO-1.
OUT jack (VCO-2)	Outputs the signal generated by VCO-2.
SYNC OUT jack (VCO-2)	Outputs the sync signal generated by VCO-2.

Corresponding controllers



* Once you set to SYSTEM-1 Layout (p. 12) mode, the controllers are laid out as they are on the SYSTEM-1.

RING MOD

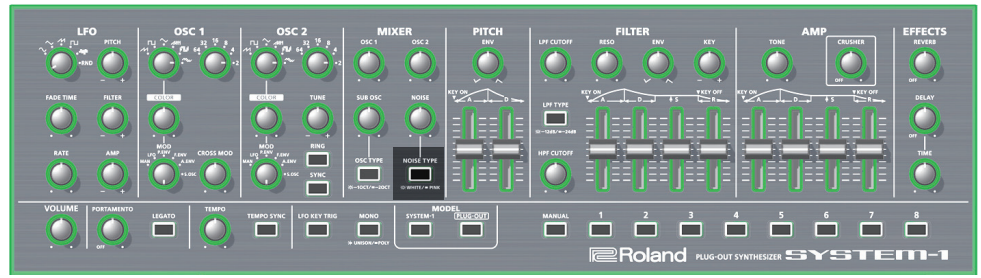
Parameter	Explanation
IN jack	The input signal is multiplied with the signal generated by VCO-2 to create a complex waveform. * If a signal is being input to the IN jack, the effect is applied to the input signal. * If a signal is being input to the SYSTEM-1m's RING IN ▼ jack, that input signal takes priority and the input signal to the IN jack is ignored. * If there is no input to either the IN jack or the SYSTEM-1m's RING IN ▼ jack, the effect is applied to the OUT signal of the VCO-1 module.
OUT jack	Outputs the signal generated by the RING MODULATOR.

* The RING MOD module has no corresponding controller.

NOISE

Parameter	Explanation
NOISE TYPE	Generates noise. • PINK: Pink noise is generated. • WHITE: White noise is generated.
OUT jack	Outputs the noise generated by the NOISE GENERATOR.

Corresponding controllers



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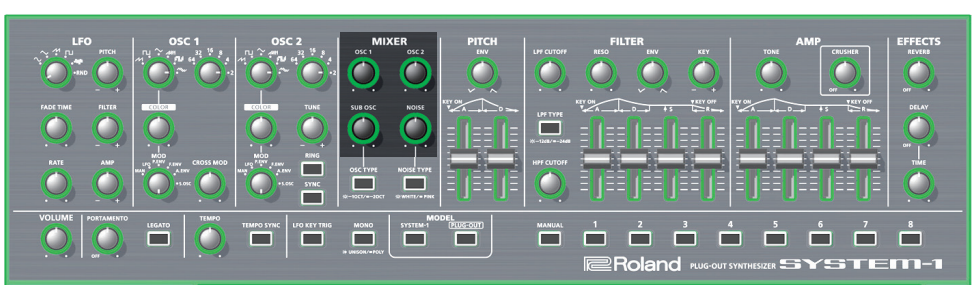
AUDIO MIXER

Parameter	Explanation
RING MOD / EXT IN	Adjusts the volume. The signal that is adjusted depends on the state of connections. * If a signal is being input to the EXT IN jack, that signal is adjusted. * If a signal is being input to the SYSTEM-1m's EXT IN ▼ jack, that signal takes priority and the input signal to the EXT IN jack is ignored. * If there is no input to either the EXT IN jack or the SYSTEM-1m's EXT IN ▼ jack, the RING MOD module's OUT signal is adjusted.
VCO-1	Adjusts the VCO-1 volume.
VCO-2	Adjusts the VCO-2 volume.
NOISE	Adjusts the NOISE GENERATOR volume.
EXT IN jack	Inputs the signal that is adjusted by the RING MOD/EXT IN slider.
OUT jack	Outputs the signal mixed by the AUDIO MIXER.

Corresponding controllers



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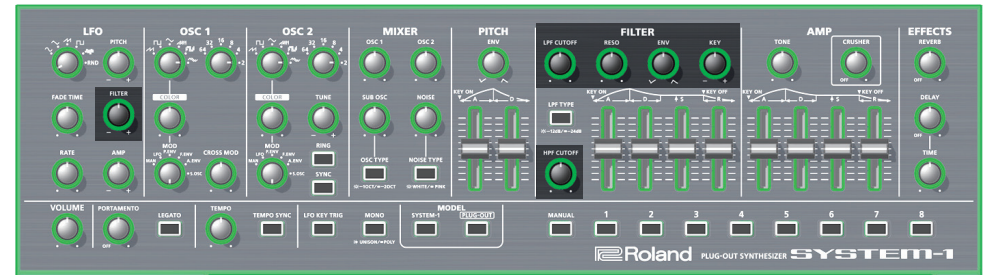
VCF (VOLTAGE CONTROLLED FILTER)

Parameter	Explanation
HPF	Specifies the cutoff frequency of the high-pass filter.
CUTOFF	Specifies the cutoff frequency of the low-pass filter.
RESO	Boosts the region around the cutoff frequency specified by CUTOFF (low-pass filter). If this is set to the maximum, oscillation occurs at the cutoff frequency.
LFO	Adjusts the amount by which the LFO modulates the cutoff frequency specified by CUTOFF (low-pass filter). * If there is no input to either the LFO IN ▼ jack or the SYSTEM-1m's FILTER LFO jack, this adjusts the amount of modulation produced by the signal of the LFO-1 module's OUT jack. * If a signal is being input to the LFO IN jack, this adjusts the amount of change produced by that signal. * If a signal is being input to the SYSTEM-1m's FILTER LFO ▼ jack, that input signal takes priority and the input signal to the EXT IN jack is ignored.
ADSR	Adjusts the amount by which ADSR modulates the cutoff frequency specified by CUTOFF (low-pass filter). * If there is no input to the SYSTEM-1m's FILTER ENV ▼ jack or the ADSR IN jack, this adjusts the amount of change produced by the signal of the VCF ADSR module's ADSR OUT signal. * If a signal is being input to the ADSR IN jack, this adjusts the amount of change produced by that signal. * If a signal is being input to the SYSTEM-1m's FILTER ENV ▼ jack, that input signal takes priority and the input signal to the ADSR IN jack is ignored.
KYBD CV	Causes the cutoff frequency specified by CUTOFF (low-pass filter) to be affected by the key that is played. Positive (+) settings make the cutoff frequency rise as you play higher notes, and negative (-) settings make the cutoff frequency fall as you play higher notes.
LFO IN jack	Inputs the signal that is adjusted by the LFO slider.
ADSR IN jack	Inputs the signal that is adjusted by the ADSR slider.

Corresponding controllers



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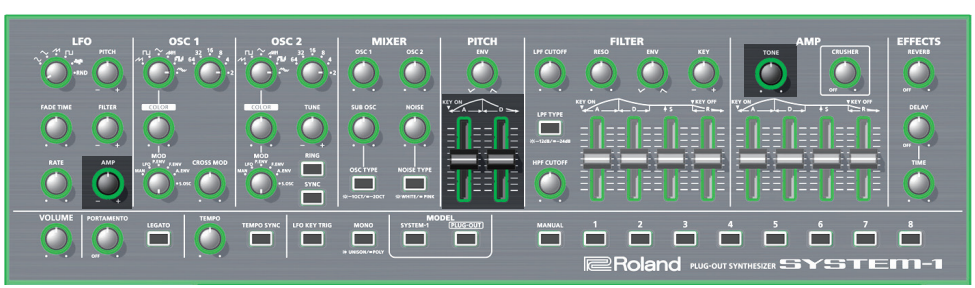
VCA (VOLTAGE CONTROLLED AMPLIFIER)

Parameter	Explanation
INITIAL GAIN	Adjusts the volume at which the input from the VCF is always output.
ADSR	Adjusts the output volume. * If there is no input to either the ADSR IN jack or the SYSTEM-1m's AMP ENV ▼ jack, this adjusts the amount of change at the VCA ADSR module's ADSR OUT signal. * If a signal is being input to the ADSR IN jack, this adjusts the amount of change at that signal. * If a signal is being input to the SYSTEM-1m's AMP ENV ▼ jack, that signal takes priority and the input signal to the ADSR IN jack is ignored.
LFO	Allows the LFO to modulate the volume.
TONE	Boosts the high or low-frequency range.
ADSR IN	Inputs the signal that is adjusted by the ADSR slider.

Corresponding controllers



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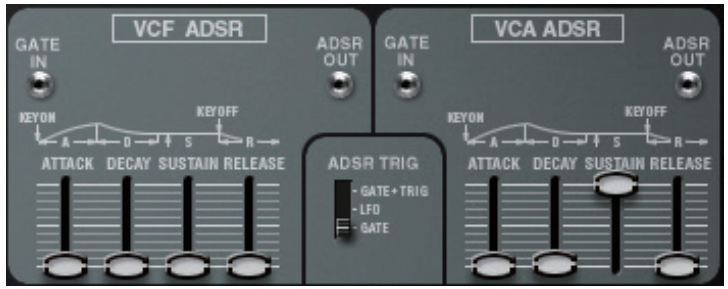
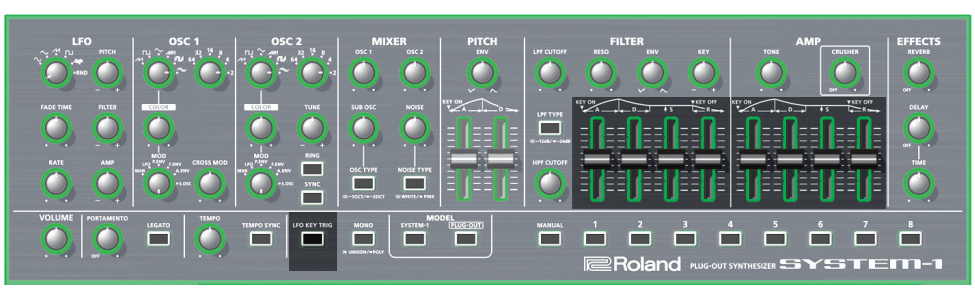
VCF ADSR / VCA ADSR (ENVELOPE GENERATOR)



Parameter	Explanation
ADSR TRIG	Generates an envelope from the selected gate signal. • GATE: The envelope rises when a key is newly pressed. • LFO: When a key is held down, the envelope rises repeatedly at intervals of the LFO-1 SQR (square wave). • GATE+TRIG: The envelope rises each time a key is pressed.
ATTACK / DECAY / SUSTAIN / RELEASE	Generate the envelope. * If there is no input to either the GATE IN jack or the SYSTEM-1m's ENV jack, the envelope is generated according to the signal selected in the ADSR TRIG section. • ATTACK: Specifies the attack time of the signal. • DECAY: Specifies the time following the attack during which the signal falls to the level specified by SUSTAIN. • SUSTAIN: Specifies the level. • RELEASE: Specifies the time over which the signal decays. * If a signal is being input to the GATE IN jack, the envelope is generated according to that signal.
GATE IN jack (VCF ADSR)	Inputs the signal that triggers the envelope generated by the VCF ADSR.
GATE IN jack (VCA ADSR)	Inputs the signal that triggers the envelope generated by the VCA ADSR.
VCF ADSR OUT jack	Outputs the signal generated by the VCF ADSR.
VCA ADSR OUT jack	Outputs the signal generated by the VCA ADSR.

Corresponding controllers



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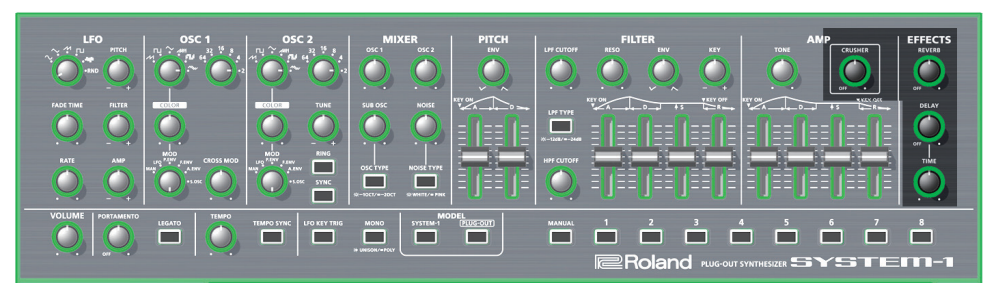
EFFECTS

Parameter	Explanation
PHASER	Adds a phaser effect to modify the character of the sound. * If a signal is being input to the LFO IN jack, that signal modifies the speed of modulation; if no signal is connected to the jack, the internal LFO of the PHASER varies the speed of modulation. • The internal LFO of the PHASER changes speed according to the position of the PHASER slider. * If a signal is being input to the MANUAL IN jack, that signal adjusts the range of modulation.
REVERB	Adjusts the reverberation.
DELAY	Adjusts the volume of the delay sound.
TIME	Adjusts the delay time (the time by which the sound is delayed).
LFO IN jack	Inputs the signal that adjusts the speed of PHASER modulation.
MANUAL IN jack	Inputs the signal that adjusts the range of PHASER modulation.

Corresponding controllers



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