English

In order to use this device correctly, please carefully read "USING THE UNIT SAFELY" and "IMPORTANT NOTES" (the "USING THE UNIT SAFELY" leaflet and the owner's manual) before use.
After reading, keep these instructions at hand for immediate reference.

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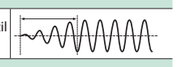
Top Panel

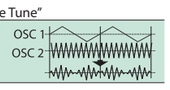
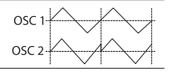
❶ LFO

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

Controller	Explanation
Wave knob	Selects the LFO waveform. (Sine wave), (Triangle wave), (Sawtooth wave), (Square wave), (Sample and Hold), **RND** (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.
[LFO KEY TRIG] button	Specifies whether the LFO cycle will be synchronized to begin when the key is pressed (ON) or not (OFF).

❷ OSC 1/OSC 2

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

Controller		Explanation
Wave knob		Selects the waveform that is the basis of the sound. (Sawtooth wave), (Square wave), (Triangle wave), (Sawtooth wave 2), (Square wave 2), (Triangle wave 2) **The newly added basic waveforms** Ver. 1.2 To select the basic waveforms that were added, hold down the [LEGATO] button and turn the OSC 1/OSC 2 waveform knob. (Noise Saw), (Logic Operation), (FM), (FM + Sync), (Vowel), (CB)
[COLOR] knob		The result depends on the waveform.
[MOD] knob		Selects the source that modulates the [COLOR] knob.
	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 ❶ **LFO** section.
	P. ENV	The sound changes over time according to the envelope of the ❻ **PITCH** section.
	F. ENV	The sound changes over time according to the envelope of the ❼ **FILTER** section.
	A. ENV	The sound changes over time according to the envelope of the ❽ **AMP** section.
	S. OSC	The sound changes over time according to the frequency of the sub-oscillator.
Octave (feet) knob		Specifies the octave of the oscillator.
[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.
[FINE TUNE] knob		Adjusts the pitch of the oscillator. **Coarse Tune** Adjusts the pitch in semitone steps. ➡ "Other Functions" – "Adjusting the OSC 2 Coarse Tune"
[RING] button		This is a ring modulator. It generates a complex waveform by multiplying OSC 1 and OSC 2. 
[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. 

❸ PLUG-OUT

What is "plug-out"?

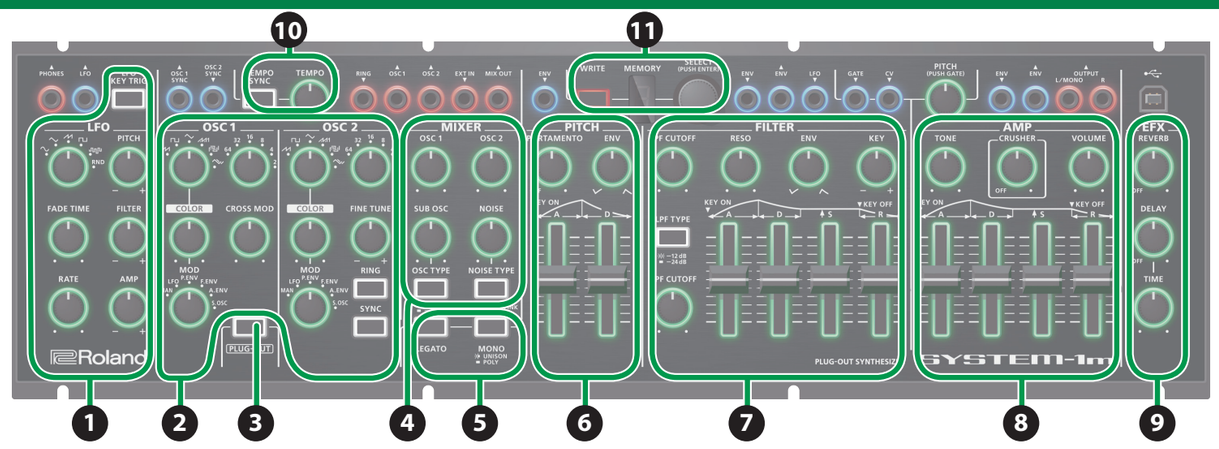
- A separately sold plug-out compatible software synthesizer can be downloaded to this unit, allowing you to play this unit by itself.
- The plug-out compatible software synthesizer can also be used as a plug-in synthesizer on your computer.
- For details on dedicated plug-out software synthesizers and how to obtain them, and on the operating requirements, refer to the Roland website.
  ➡ **http://roland.cm/sys1mpg**

Controller	Explanation
[PLUG-OUT] button	If the [PLUG-OUT] button is off, this unit will operate as a SYSTEM-1m synthesizer. If the [PLUG-OUT] button is on, this unit will operate in "plug-out" mode.

❹ 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.

Controller	Explanation
[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. **Lit**: Sound one octave below, **Unlit**: Sound two octaves below
[NOISE] knob	Adjusts the volume of the noise.
[NOISE TYPE] button	Selects the type of the noise. **Lit**: white noise, **Unlit**: pink noise



❺ LEGATO, MONO

Here you can make the following settings for the SYSTEM-1m.

Controller	Explanation
[LEGATO] button	Applies portamento only when you play legato (i.e., when you press the next key before releasing the previous key).
[MONO] button	If this is on (lit), the synth will play monophonically (single notes). If this is blinking, the synth will play all sounds in unison (UNISON mode).

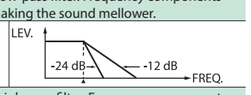
❻ PITCH

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

Controller	Explanation
[PORTAMENTO] knob	Creates a smooth change in pitch between one key and the next key played. The knob adjusts the time required for the pitch change.
[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 **[D] slider**	These sliders operate similarly to the [A][D] sliders of the ❽ **AMP** section (they affect the pitch rather than the volume).

❼ FILTER

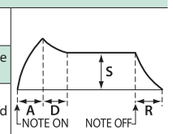
These settings determine the brightness and thickness of the sound. Here you can also specify the time-varying change (envelope) for the filter.

Controller	Explanation
[LPF CUTOFF] knob	Specifies the cutoff frequency of the low-pass filter. Frequency components above the cutoff frequency are cut, making the sound mellower.
[LPF TYPE] button	Selects the slope (steepness) of the low-pass filter. **Lit**: -12 dB, **Unlit**: -24 dB 
[HPF CUTOFF] knob	Specifies the cutoff frequency of the high-pass filter. Frequency components below the cutoff frequency are cut.
[RESO] knob	Resonance boosts the sound in the region of the filter's cutoff frequency. Higher settings produce stronger emphasis, creating a distinctively "synthesizer-like" sound.
[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.
[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 higher notes.
[A] slider **[D] slider** **[S] slider** **[R] slider**	These sliders operate similarly to the [A][D][S][R] sliders of the ❽ **AMP** section (they affect the cutoff frequency rather than the volume).

❽ AMP

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

Controller	Explanation
[TONE] knob	Adjusts the brightness of the sound.
[CRUSHER] knob	Modifies the tonal character by distorting the waveform.
[VOLUME] knob	Adjusts the volume.
[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.



❾ EFX

Here you can adjust the amount of reverb and delay.

Controller	Explanation
[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).

❿ TEMPO

Here you can make the tempo settings.

Controller	Explanation
[TEMPO] knob	Sets the tempo. The LED blinks at the tempo you specified. * If MIDI clock is being input to the MIDI IN connector or the USB port, the SYSTEM-1m's tempo will automatically synchronize to MIDI clock. ➡ "MIDI and Other Settings" – "MIDI Clock Source"
[TEMPO SYNC] button	Synchronizes the RATE of the ❶ **LFO** section and the delay time (TIME) of the ❾ **EFX** section to the tempo.

⓫ MEMORY

What is "Memory/Bank"?

You can store/recall up to 64 sets (8 memories x 8 banks) of panel settings (knobs/sliders). Ver. 1.2

Controller	Explanation
[WRITE] button	Stores the panel settings in memory.
[SELECT] knob	Recalls a memory (panel settings).
Display	Shows the memory number, etc.

To recall settings (a sound) from the memory

1. **If you want to switch banks, hold down the [PLUG-OUT] button and turn the [SELECT] knob to select a bank (1–8).** Ver. 1.2
   "–" appears on the display.
   * You can skip this step if you do not want to switch banks.
2. **Turn the [SELECT] knob to select a memory number, and then press the knob to confirm.**
   Value: (Manual), 1–8
   The number blinks while you're selecting it.
   If you decide to cancel your selection, just select the original bank/memory.

What is "Manual mode"?

Causes sound to be produced according to the current settings of the knobs and sliders.

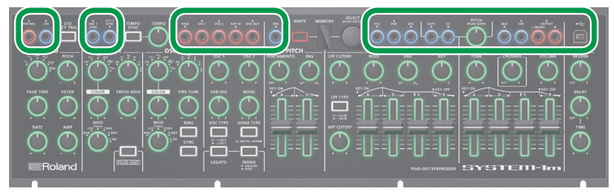
To store panel settings in the memory

When you edit the memory settings, the dot will appear in the display.

1. **Press the [WRITE] button.**
   The [WRITE] button lights.
   If you decide to cancel the Write operation, press the [WRITE] button once again.
   The number (1–8) of the selected memory blinks.
   If (manual) is selected, the number 1 blinks.
2. **If you want to switch banks, hold down the [PLUG-OUT] button and turn the [SELECT] knob to select a bank (1–8).** Ver. 1.2
   "–" appears on the display.
   * You can skip this step if you do not want to switch banks.
3. **Turn the [SELECT] knob to select the writing-destination memory (1–8), and then press the knob to store the settings.**

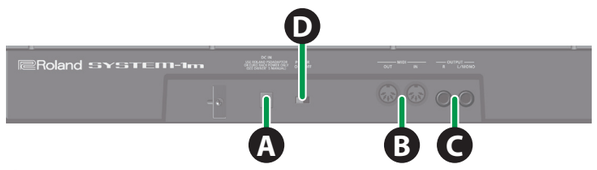
Connecting Your Equipment (Jack Area)

* To prevent malfunction and equipment failure, always turn down the volume, and turn off all the units before making any connections.
* The input/output jacks in the jack area are used for MONO mode ❺.
  The input/output jacks that can be used are illuminated.
  Red: Audio signal, **Blue:** Control signal
* The state of each input jack (connected or disconnected) is stored in memory.
  Input jacks in which a plug is not inserted when settings are written are stored in memory as "disconnected jacks." Even if a plug is inserted into a "disconnected jack" when that memory is recalled, the input signal from that jack is ignored (the jack blinks). This allows you to store different sounds that use various combinations of external devices (input jacks). To enable a blinking "disconnected jack," unplug and reinsert the plug.
* Use patch cables with monaural mini-plugs to connect other equipment. The system will not work correctly if you use cables with stereo mini-plugs.
* If you're playing via the CV ▼ (IN) jack and GATE ▼ (IN) jack, you must connect both the CV ▼ (IN) jack and the GATE ▼ (IN) jack.
* If you're playing via the CV ▼ (IN) jack and GATE ▼ (IN) jack, noise that enters from the power supply or the patch cables may cause the pitch to be unstable or noise to appear in the sound. If this occurs, you may be able to improve the situation by connecting the power supply to a different source or by re-routing the patch cables.
* If you're playing via MIDI (or USB MIDI), disconnect any cables from the CV ▼ (IN) jack and the GATE ▼ (IN) jack. If a cable is inserted in the CV ▼ (IN) jack or GATE ▼ (IN) jack, playing via MIDI (or USB MIDI) is not possible (when using MONO mode).



Jacks	Explanation
PHONES ▲ (OUT) jack	Connect headphones (separately sold, stereo mini-plug).
LFO ▲ (OUT) jack	Outputs an LFO signal.
OSC 1 SYNC ▲ (OUT) jack	Outputs a pulse signal for syncing another OSC to OSC 1.
OSC 2 SYNC ▼ (IN) jack	If oscillator sync is on, OSC 2 syncs to this signal. If this jack is not used, OSC 2 syncs to OSC 1.
RING ▼ (IN) jack	If the ring modulator is on, OSC 2 is multiplied with this signal. If this jack is not used, the waveforms of OSC 1 and OSC 2 are multiplied.
OSC 1 ▲ (OUT) jack	Outputs the OSC 1 waveform.
OSC 2 ▲ (OUT) jack	Outputs the OSC 2 waveform.
EXT IN ▼ (IN) jack	Inputs the waveform. If this jack is used, SUB OSC does not enter the MIXER. Use the MIXER [SUB OSC] knob to adjust the input level.
MIX OUT ▲ (OUT) jack	Outputs the waveform that has passed through the MIXER. * If the various MIXER knobs are set to high levels, the output waveform from the MIX OUT jack may be distorted. If this occurs, adjust the level of each knob.
PITCH ENV ▼ (IN) jack	Inputs a waveform that controls PITCH from an external source. Use the [ENV] knob to adjust the effect. If this jack is not used, PITCH ENV is enabled.
FILTER ENV ▼ (IN) jack	Inputs a waveform that controls the CUTOFF frequency from an external source. Use the [ENV] knob to adjust the effect. If this jack is not used, FILTER ENV is enabled.
FILTER ENV ▲ (OUT) jack	Outputs the FILTER ENV waveform to an external device.
FILTER LFO ▼ (IN) jack	Inputs a waveform that controls the CUTOFF frequency from an external source. Use the [LFO FILTER] knob to adjust the effect. If this jack is not used, the LFO is enabled.
GATE ▼ (IN) jack	Inputs keyboard note-on/off from an external device.
CV ▼ (IN) jack	Inputs keyboard pitch from an external device. This jack supports OCT/V (it does not support Hz/v). **FINE TUNE setting / KEY FOLLOW setting** These settings adjust the fine tune and key follow relative to the voltage that is input. ➡ "Other Functions" – "CV ▼ (IN) Jack Settings"
[PITCH] knob	When you press this knob, a pitch corresponding to the position of the knob is heard. Turning the knob toward the right raises the pitch. Turning the knob toward the left lowers the pitch.
AMP ENV ▼ (IN) jack	Inputs a waveform that controls the volume from an external source. If this jack is not used, the AMP ENV is enabled.
AMP ENV ▲ (OUT) jack	Outputs the AMP ENV waveform to an external device.
OUTPUT ▲ L/MONO, R jacks	Connect these jacks to your amp or monitor speakers. If your system is monaural, use only the L/MONO jack.
USB (⇠) port	Use a commercially available USB 2.0 cable 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 before connecting the SYSTEM-1m to your computer.** Download the USB driver from the Roland website. For details, refer to Readme.htm which is included in the download. ➡ **http://www.roland.com/support/**

Rear Panel Connections



Ⓐ DC IN jack
Connect the included AC adaptor here. Use only the included AC adaptor.
* To prevent the inadvertent disruption of power to your unit (should the plug be pulled out accidentally), and to avoid applying undue stress to the DC IN jack, anchor the power cord using the cord hook, as shown in the illustration.

Ⓑ MIDI connectors
For connecting MIDI device.
* A MIDI connector is also provided on the bottom panel. Use the settings in "MIDI and Other Settings" to specify which MIDI IN connector is used.

Ⓒ OUTPUT jacks
Connect these jacks to your amp or monitor speakers. If your system is monaural, use only the L/MONO jack.
* Do not use connection cables that contain a built-in resistor.

Turning the Power On/Off

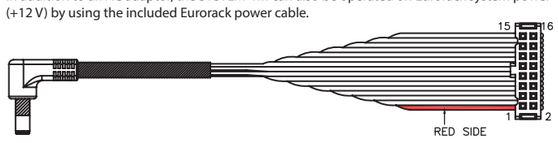
Ⓓ [POWER] switch
This turns the power on/off.
* This unit is equipped with a protection circuit. A brief interval (a few seconds) after turning the unit on is required before it will operate normally.

⚠ CAUTION

* After you've made connections correctly, be sure to **turn on the power in the order of the SYSTEM-1m 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 SYSTEM-1m**.
* 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.

Using a Eurorack Power Cable

In addition to an AC adaptor, the SYSTEM-1m can also be operated on Eurorack system power (+12 V) by using the included Eurorack power cable.



* Always turn the Eurorack unit off and unplug the power cord before plugging the Eurorack power cable.

1. **Insert the 16-pin connector of the Eurorack power cable into the Eurorack power connector.**
   When inserting the connector, align it with the groove. If there is no groove, align the wire bearing the red mark with pin number 1.
2. **Connect the other connector of the Eurorack power cable to the DC IN jack of the SYSTEM-1m.**

* The +12 V power of the SYSTEM-1m draws 700 mA of current. Use a power supply that can deliver this amount of current.
  For more about Eurorack power supply units, refer to the Roland website. Here you can find the latest information about units that have been verified to be compatible.
  ➡ **http://www.roland.com/support/**

Main Specifications

Roland SYSTEM-1m: PLUG-OUT SYNTHESIZER

Maximum Polyphony	4 voices (SYSTEM-1m Mode)	
Power Supply	AC adaptor or Eurorack power	
Current Draw	1300 mA (AC adaptor), 700 mA (Eurorack power)	
Dimensions	427 (W) x 129 (D) x 70 (H) mm	16-13/16 (W) x 5-1/8 (D) x 2-13/16 (H) inches
Weight	1.25 kg (excluding AC adaptor)	2 lbs 13 oz
Accessories	AC adaptor, Owner's Manual, Leaflet "USING THE UNIT SAFELY," PLUG-OUT information card, Rackmount adaptors, Eurorack installation screws, Eurorack power cable, Patch cables	

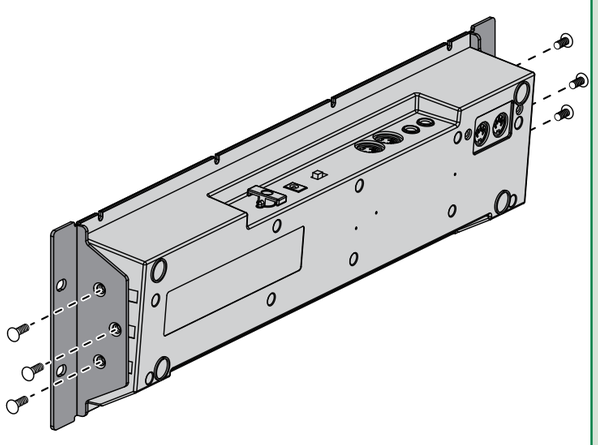
* In the interest of product improvement, the specifications and/or appearance of this unit are subject to change without prior notice.

Rack Attachment Area

Attaching the Rackmount Adaptors

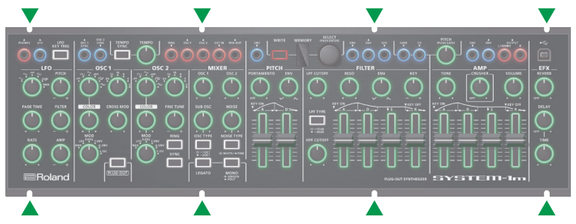
1. **Remove the screws (three on each side) from the left and right sides of the SYSTEM-1m.**
2. **Using the screws that you removed in step 1, attach the included rackmount adaptors to the SYSTEM-1m.**

* You must use the screws that you removed.
* 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.



Installing in a Eurorack case

Use the included screws (8 pcs.) to attach the SYSTEM-1m to your Eurorack case at the locations indicated.



USING THE UNIT SAFELY

Also read the "USING THE UNIT SAFELY" leaflet.

⚠ WARNING

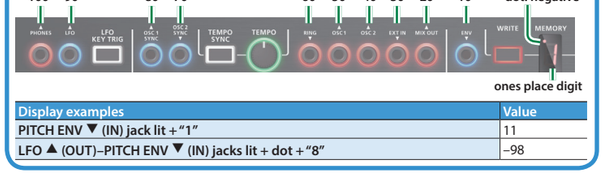
Electrocution hazard
Do not touch the electrical terminals when attaching the Eurorack power cable.

⚠ CAUTION

Keep small items out of the reach of children
To prevent accidental ingestion of the parts listed below, always keep them out of the reach of small children.
- Included Parts
  Eurorack installation screws
- Removable Parts
  Screws for attaching the rackmount adaptor

Other Functions

Values represented by the jack LEDs



Display examples	Value
PITCH ENV ▼ (IN) jack lit + "1"	11
LFO ▲ (OUT)–PITCH ENV ▼ (IN) jacks lit + dot + "8"	–98

Adjusting the Volume of Each Memory

1. **While holding down the [TEMPO SYNC] button, turn the [SELECT] knob.**
   The display indicates the volume.
   ➡ "Values represented by the jack LEDs"

Changing the Pitch Bend Range

1. **While holding down the [LEGATO] button, turn the [SELECT] knob.**
   The display indicates the pitch bend amount (PITCH ENV ▼ (IN) jack lit means +10, PITCH ENV ▼ (IN) and MIX OUT ▲ (OUT) jacks lit means +20).

Adjusting the OSC 2 Coarse Tune

Here's how to specify the OSC 2 pitch in semitone steps.

1. **While simultaneously holding down the [RING] and [SYNC] buttons, turn the [SELECT] knob.**
   The display indicates the coarse tune amount (PITCH ENV ▼ (IN) jack lit means +10; the display's dot is lit to indicate negative).

CV ▼ (IN) Jack Settings

Here's how to specify the fine tune, key follow relative to the input voltage.

Tips
Adjusting the CV jack's key follow setting will cause the tuning to change slightly. For this reason, you should adjust key follow first, and then use fine tune to specify the overall pitch.

Adjusting the key follow

1. **While holding down the [NOISE TYPE] button, turn the [SELECT] knob.**
   The display indicates the key follow amount.
   ➡ "Values represented by the jack LEDs"

Adjusting the fine tune

1. **While holding down the [OSC TYPE] button, turn the [SELECT] knob.**
   The display indicates the fine tune amount.
   ➡ "Values represented by the jack LEDs"

MIDI and Other Settings

1. **While holding down the [WRITE] button and press the [LFO KEY TRIG] button.**
   The [LFO KEY TRIG] button blinks.
2. **Use the buttons and the knobs to make the setting.**

Parameter	Controller		Explanation
MIDI channel	[SELECT] knob	– (OFF)	Specifies the MIDI transmit/receive channel. (default: 1) Fully left (off) Fully right (omni) PITCH ENV ▼ (IN) jack lit means +10
		1–16	
		(OMNI)	MIDI messages of all channels are received. The MIDI transmit channel will be 1.
MIDI Clock Source	[RING] Button	Lit (AUTO)	If MIDI clock is being input to the MIDI IN connector or the USB port, the SYSTEM-1m's tempo will automatically synchronize to MIDI clock. (default) If MIDI clock is being simultaneously input from the MIDI IN connector and from the USB port, the USB port takes priority.
		Unlit (INTERNAL)	The SYSTEM-1m operates at the tempo specified on the unit itself. Choose the "INTERNAL" setting if you don't want to synchronize to an external device.
MIDI Thru	[OSC TYPE] button	Lit (ON)	Specifies whether data received from the MIDI IN connector will be retransmitted from the MIDI OUT connector (ON: default) or will not be retransmitted (OFF).
		Unlit (OFF)	
LED DEMO	Hold down the [LPF TYPE] and turn the [SELECT] knob		Specifies the time (minute) until the LED DEMO is shown (PITCH ENV ▼ (IN) jack lit means +10). If this is set to "–," the LED DEMO is not shown.
Master Tune	Hold down the [TEMPO SYNC] button and turn the [SELECT] knob		The actual value is 440 Hz added to the display indication (PITCH ENV ▼ (IN) jack lit means +10; the display's dot is lit to indicate negative).
MIDI IN connector selection	[SYNC] button	Lit (SIDE)	Specifies which MIDI IN connector is used. (default: SIDE)
		Unlit (BOTTOM)	
Factory Reset	Hold down the [WRITE] and press the [LFO KEY TRIG]		Here's how to return the SYSTEM-1m to its factory-set state. * Step **3** is not necessary.

3. **Press the [LFO KEY TRIG] button to save the settings.**
   After the settings are saved, the unit returns to normal operation.

Take a Snapshot of All Controllers

Here's how to transmit the current state of the knobs, sliders, and switches to a computer or a MIDI device.

1. **While holding down the [WRITE] button, press the [SYNC] button.**

Data Backup/Restore

Here's how to back up and restore memory files.

Backup

1. **While holding down the [LFO KEY TRIG] button, turn on the power.**
2. **Connect your computer to the SYSTEM-1m's USB port via USB cable.**
3. **Open the "SYSTEM-1M" drive on your computer.**
   The scene memory backup files are located in the "BACKUP" folder of the "SYSTEM-1M" drive.
4. **Copy the SYSTEM-1m Memory files in "BACKUP" folder into your computer.**

SYSTEM-1	SYSTEM1_PATCH1.PRM–SYSTEM1_PATCH8.PRM
PLUGOUT	PLUGOUT_PATCH1.PRM–PLUGOUT_PATCH8.PRM

5. **After copying is completed, disconnect the USB cable.**

Windows 8/7
Right-click on the "SYSTEM-1M" icon in "My Computer" and execute "Eject."

Mac OS
Drag the "SYSTEM-1M" icon to the Trash icon in the Dock.

6. **Turn the SYSTEM-1m power off.**

Restore

1. **While holding down the [LFO KEY TRIG] button, turn on the power.**
2. **Connect your computer to the SYSTEM-1m's USB port via USB cable.**
3. **Open the "SYSTEM-1M" drive on your computer.**
4. **Copy the SYSTEM-1m memory files into the "RESTORE" folder of the "SYSTEM-1M" drive.**
5. **After copying is completed, disconnect the USB cable.**

Windows 8/7
Right-click on the "SYSTEM-1M" icon in "My Computer" and execute "Eject."

Mac OS
Drag the "SYSTEM-1M" icon to the Trash icon in the Dock.

6. **After the [LFO FILTER][OSC 1 COLOR] knobs have completely stopped blinking, turn off the power.**