

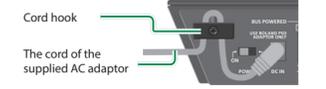
Rear Panel

[POWER] switch
This turns the power on/off.

- When powering-on your equipment, you must turn on each device in the following order: devices connected to the input jacks → the MX-1 → devices connected to the output jacks. Failure to observe this order could cause malfunctions or damage your equipment.
- When powering-off your equipment, you must turn off each device in the following order: devices connected to the output jacks → the MX-1 → devices connected to the input jacks.
- 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.
- 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.

DC IN jack
Connect the included AC adaptor here.

- 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 jack, anchor the power cord using the cord hook, as shown in the illustration.



USB HOST (1-4) ports
These are dedicated USB audio input ports for use only with AIRA products (such as the TR-8, TB-3, VT-3, and SYSTEM-1). By using commercially available USB 2.0 cables to connect your AIRA products, you can input their audio output (stereo) to the MX-1 and mix the audio outputs. The USB HOST 3 port can supply USB bus power. The TB-3 or VT-3, which support bus power, can be connected here.

- Do not connect any USB device other than an AIRA product.

Product Support
<http://www.roland.com/support/>

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 MX-1 to your computer. Download the USB driver from the Roland website. For details, refer to Readme.htm which is included in the download.

Product Support
<http://www.roland.com/support/>

MIDI (IN, OUT) connectors
For connecting MIDI device.

DIGITAL IN/OUT jack
A two-channel (stereo) digital input/output device can be connected here. Switch the setting of this jack between input/output depending on the device that you connect.

AUX SEND (L, R) jacks
These jacks output the send audio to an external effect unit.

- The master audio is not output.

AUX RETURN (L, R) jacks
These jacks input the return audio from an external effect unit.

INPUT (1-4, 5/6) jacks
Connect external sound sources to these jacks. By switching their settings, you can use INPUT 1-4 jacks either as monoaural inputs (1, 2, 3, 4) or as stereo inputs (1/2, 3/4). INPUT 5/6 jacks support stereo input.

- Do not use connection cables that contain a built-in resistor.

MIX OUT (L/MONO, R) jacks
Connect your amp or monitor speaker here. These jacks output the master audio.

- Do not use connection cables that contain a built-in resistor.

PHONES jack
Connect headphones here.

PHONES

This adjusts the headphone output. The headphones let you listen to the master audio simultaneously with the sound of the channel selected by the [SELECT] button. Even if you lower the level of the selected channel or mute it, you can listen to its sound by turning the [MIXING] knob to the SELECT position; this lets you prepare the next song or make settings for it.

[LEVEL] knob
This adjusts the volume of the headphones. The balance adjusted by the [MIXING] knob is output without further change.

[MIXING] knob
This adjusts the balance between the master output and the channel whose [SELECT] button is lit. Turning the knob toward SELECT decreases the volume of the master output; turning the knob toward MASTER decreases the volume of the selected channel.

NOTE
When the [MIXING] knob is in the SELECT position, the sound is output at the volume before the adjustment of the MX-1's [LEVEL] fader is applied. Before you audition the sound of the selected channel, you should turn down the [LEVEL] knob to avoid damaging your hearing with high volume.

AUX

Here you can adjust the output level of the AUX SEND jacks and the input level from the AUX RETURN jacks.

[SEND] knob
Adjusts the send level that is output from the AUX SEND jacks.

[RETURN] knob
Adjusts the return level that is input from the AUX RETURN jacks.

CHANNEL SETTING

Here you can adjust the gain and pan of each channel, as well as settings such as BEAT FX and TONE / FILTER FX.

Name	Explanation
[GAIN] button	Adjusts the input gain. The level meter indicates the input gain. Range: -20~30 dB → "Operation procedure: Adjusting the input gain"
[PAN] button	Adjusts the pan (stereo position). The monoaural channels (1-4) provide a pan adjustment; the stereo channels (5/6, DIGITAL, USB 1-4, PC) provide a left/right balance adjustment. Range: L50-C0 (Center)-R50 → "Operation procedure: Adjusting the pan"
[TONE] button	Switches the TONE/FILTER FX type. → "Operation procedure: TONE/FILTER FX settings"
[AUX] button	Adjusts the volume that is output to the AUX SEND jacks. → "Operation procedure: Setting the AUX level"
[BFX] button	Selects the steps at which BEAT FX is applied, and adjusts the depth level. → "Operation procedure: BEAT FX settings"
[FADER] button	Specifies how the [LEVEL] fader changes the level (fader curve). → "Operation procedure: Fader curve settings"

SCENE MEMORY

Scene memory stores the settings of the CHANNEL SETTING section, the effect section, and the mixer section as a single scene, allowing you to load these settings when necessary. You can store up to 64 scenes (16 pads x 4 banks).

→ "Operation procedure: Storing and recalling scene memories"

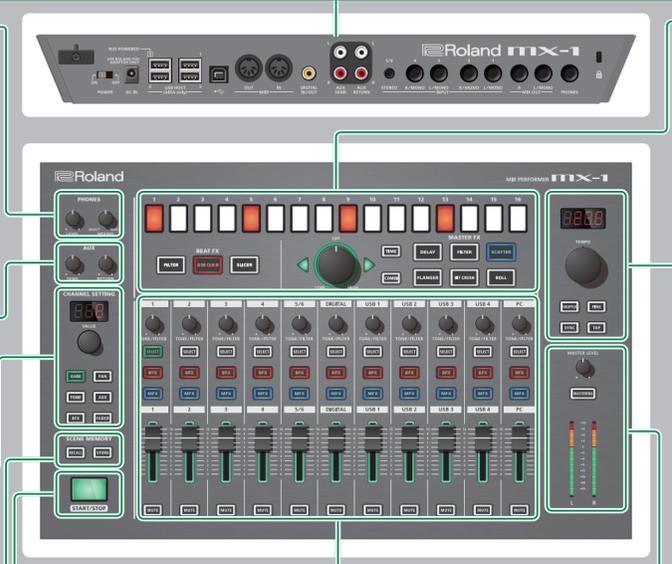
[RECALL] button
Recall a scene memory.

[STORE] button
Store a scene memory.

START/STOP

Starts (lit) or stops (blinking) the BEAT FX.

When you start, BEAT FX applies in synchronization with the tempo at the steps you specify using the pads [1]-[16]. You can also use the combination function with MASTER FX so that the type is switched for each step in synchronization with the tempo.



Mixer Section

Here you can adjust settings such as level, TONE / FILTER FX, BEAT FX, and MASTER FX.

Name	Explanation
[TONE/FILTER] knob	Edits the TONE/FILTER FX parameter that's selected by the [TONE] button. Selects the channel whose "CHANNEL SETTING" parameter you will edit. * Even if the channel whose [SELECT] button is lit is not being output from the master output (i.e., if the channel is muted or its level is lowered), you can turn the [MIXING] knob toward the SELECT position to adjust the sound.
[SELECT] button	To select one channel: Press the [SELECT] button. To select multiple channels: Hold down the [SELECT] button and press the [SELECT] button of another channel. To select all: Hold down the CHANNEL SETTING button and press the [SELECT] button.
[BFX] button	Applies the BEAT FX to the sound of the channel. → "Operation procedure: BEAT FX settings" * The button blinks if the BEAT FX depth level is set to 0. Adjust the depth level as necessary.
[MFX] button	Specifies whether the input sound is output without change (unlit) or the MASTER FX applied (lit). → "Operation procedure: MASTER FX settings"
[LEVEL] fader	Adjusts the level. You can specify the fader curve by which the level changes. → "Operation procedure: Fader curve settings"
[MUTE] button	Mutes the sound of the channel.

Effect Section

The effect section contains BEAT FX which lets you modify the sound by applying an effect to each channel, and MASTER FX which applies an effect to the mixed sound of all channels.

Pad [1]-[16]
Select the steps at which the BEAT FX and MASTER FX are applied.

BEAT FX
For each channel, you can edit the filter, slicer, or side chain settings, and modify the sound by turning them on/off for each step. The BEAT FX effect is synchronized to the tempo of the device that's specified as the clock master.
→ "Operation procedure: BEAT FX settings"

Name	Explanation
[FILTER] button	Applies a filter.
[SIDE CHAIN] button	Applies a side chain.
[SLICER] button	Applies a slicer.

MASTER FX
This applies an effect such as delay, filter, scatter, or roll to the mixed sound of all channels. By using the combination function, you can switch the MASTER FX type at each step in synchronization with the tempo. → "Operation procedure: MASTER FX settings"

- You can't specify a different MASTER FX type for each channel.
- If the tempo is too fast, the type might not switch at the intended step when using the combination function.

Name	Explanation
[MASTER FX] knob	Use this knob to edit the effect parameters. The ◀▶ indications at the left and right of the [MASTER FX] knob change their appearance depending on the knob position. ◀ lit: LOW side ▶ lit: OFF ▶ lit: HIGH side
[TIME] button	Specifies the delay time or the frequency response of the filter etc.
[COMBI] button	Makes settings for the combination function.
[DELAY] button	Applies a delay.
[FILTER] button	Applies a filter.
[SCATTER] button	Applies a scatter.
[FLANGER] button	Applies a flanger.
[BIT CRUSH] button	Applies a bit crusher (producing a distinctive noisy sound).
[ROLL] button	Produces a roll (repeated playback).

TEMPO

Here you can specify the tempo and specify the MIDI clock synchronization source (clock master). You can also adjust the amount of shuffle (rhythmic bounce) on the BEAT FX and combination function.

Name	Explanation
[TEMPO] knob	Specifies the tempo. The tempo value is shown in the display above the knob. Range: 40.0~300.0
[SHUFFLE] button	Adjust the amount of shuffle (rhythmic bounce). Range: -50~0~50
[FINE] button	Specifies the tempo below the decimal point.
[SYNC] button	Selects the MIDI clock synchronization source (clock master). → "Operation procedure: Synchronization settings"
[TAP] button	To set the tempo, tap this button several times at the desired interval.

- If the clock master setting is other than "INT", the [TEMPO], [SHUFFLE], [FINE], and [TAP] buttons are inoperable.

Master Out Section

Here you can adjust the master level and the mastering effect settings.

Name	Explanation
[MASTER LEVEL] knob	Adjusts the volume that is output from the MIX OUT jacks.
[MASTERING] button	Edits the MASTERING FX (mastering effect) settings. → "Operation procedure: MASTER FX settings"
Level meter	Indicates the master output level. If the [GAIN] button is lit, the meter indicates the input level of the selected channel.

Operation procedure

Connecting devices

Connect your equipment correctly as described below.

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

Connecting external audio sources

External audio sources such as an analog synth or a DJ player can be connected to the INPUT 1-4 or 5/6 jacks, or to the DIGITAL IN jack.

NOTE

With the default settings, INPUT 1-4 are assigned as monoaural inputs, and DIGITAL IN/OUT is assigned as digital input. If you want to input stereo sources to INPUT 1-4, or if you want to use DIGITAL IN/OUT as digital output, make the appropriate changes to the system settings.

System Settings: Channel link

Connecting AIRA products

AIRA products such as the TR-8 and TB-3 can be connected via a commercially available USB 2.0 cable to a USB HOST port.

Connecting computer

If you want to mix the audio playback from your computer, use a commercially available USB 2.0 cable to connect the MX-1's USB port to your computer. You must install the USB driver before connecting the MX-1 to your computer.

Rear Panel: USB (-/-) port

With the default settings, the audio playback from your computer is input to the PC channel in stereo.

If no AIRA product is connected to the USB HOST ports, the audio playback from your computer can be input to USB 1-4 channels and mixed.

System Settings: Mixer mode

Connecting MIDI device

The MX-1 can receive MIDI Clock (F8) data to synchronize its tempo. It can also receive MIDI Start (FA) and MIDI Stop (FC) to start/stop itself.

Connecting external effect device

If you want to use an external effect device or amp via the send/return jacks, connect your equipment to the AUX SEND jacks and AUX RETURN jacks.

Operation procedure: Setting the AUX level

Synchronization settings

Here's how to select the MIDI clock master in order to synchronize the tempo of the MX-1 and the connected devices.

- Press the [SYNC] button to make it light.
- Turn the [TEMPO] knob to select the MIDI clock master. The clock master you select blinks in the display above the [TEMPO] knob.

Display	Explanation
	If a MIDI clock is being input from a connected device, the MX-1 synchronizes to that MIDI clock. If multiple MIDI clocks are being input, the MX-1 synchronizes to one of them in the following order of priority.
	1. USB (-/-) port 2. MIDI IN connector 3. USB HOST 1 port 4. USB HOST 2 port 5. USB HOST 3 port 6. USB HOST 4 port
	The MX-1 is the MIDI clock master.
	The MX-1 synchronizes to the MIDI clock of the device connected to the MIDI IN connector.
	The MX-1 synchronizes to the MIDI clock of the device connected to the USB HOST ports.
	The MX-1 synchronizes to the MIDI clock that's specified by the DAW running on the computer connected to the USB (-/-) port.

(*) If there is no MIDI clock input, the MX-1 is the MIDI clock master.

- Press the [SYNC] button to confirm the clock master. The display changes from blinking to lit.
- Press the [SYNC] button to make it go dark. If "INT" is selected as the clock master, use the [TEMPO] knob and [FINE] knob or the [TAP] button to specify the tempo. If a different clock master is selected, the MX-1 synchronizes to the tempo of the connected device.

Adjusting the input gain

- Press the [GAIN] button to make it light.
- Press the [SELECT] button of the channel whose input gain you want to adjust; the button lights. The value of the current setting is shown in the display above the [VALUE] knob, and the level meter changes to show the input gain.
→ "Mixer Section: [SELECT] button"
- Turn the [VALUE] knob to adjust the gain. Adjust the gain so that the signal does not exceed 0 dB on the level meter (the green LED at the top).

Adjusting the pan

- Press the [PAN] button to make it light.
- Press the [SELECT] button of the channel whose pan you want to adjust; the button lights.
→ "Mixer Section: [SELECT] button"
- Turn the [VALUE] knob to adjust the pan.

TONE/FILTER FX settings

With the default settings, TONE/FILTER FX is set to "FILTER1."

- Press the [TONE] button to make it light.
- Press the [SELECT] button of the channel which you want to apply; the button lights.
→ "Mixer Section: [SELECT] button"
- Turn the [VALUE] knob to select the type.

Number	Type	Explanation
1	FILTER 1 (FL1)	Low pass and high pass filters are applied.
2	FILTER 2 (FL2)	
3	TONE 1 (Tn1)	The volume of the low-frequency and high-frequency region is changed.
4	TONE 2 (Tn2)	
5	EQ LOW 1 (L o 1)	The volume of the low-frequency region is changed.
6	EQ LOW 2 (L o 2)	
7	EQ HI1 (H i 1)	The volume of the high-frequency region is changed.
8	EQ HI2 (H i 2)	
9	ISOLATOR 1 (i 1)	The low-frequency and high-frequency regions are cut.
10	ISOLATOR 2 (i 2)	The low-frequency, middle-frequency and high-frequency regions are cut.

- Turn the [TONE/FILTER] knob of each channel to adjust the depth.
- TONE/FILTER FX is off when the [TONE/FILTER] knob is in the center position; turning the knob to the left or right applies the effect of the selected type.

BEAT FX settings

By using BEAT FX you can apply an effect such as filter, side chain, or slicer to individual channels. BEAT FX can also be turned on/off for individual steps to create change in the sound.

- Press the CHANNEL SETTING [BFX] button to make it light.
- Press the [START/STOP] button to start the BEAT FX.
- On each channel to which you want to apply the BEAT FX, press the [BFX] button to make it light.
- On the channel for which you want to make BEAT FX settings, press the [SELECT] button to make it light.
→ "Mixer Section: [SELECT] button"
- Hold down the CHANNEL SETTING [BFX] button and use pads [1]-[16] to specify the last step (the number of steps).
* The steps loop at the pad that you specify as the last step.

6. Select the BEAT FX type and variation.

Type	Explanation
FILTER	Cuts a specific frequency region from the input sound.
SIDE CHAIN	Adjusts ("ducks") the volume of the audio input.
SLICER	Periodically cuts the output of the input sound.

- To select the variation, hold down the [FILTER], [SIDE CHAIN], or [SLICER] button and turn the [VALUE] knob.

- Use pads [1]-[16] to select the steps at which BEAT FX applies.

- The BEAT FX effect applies at the timing of the pads that are lit.

- Turn the [VALUE] knob to adjust the depth level. By holding down the CHANNEL SETTING [BFX] button and turning the [VALUE] knob you can adjust the duration (gate time) during which the BEAT FX effect is applied.

MASTER FX settings

MASTER FX lets you apply effects such as delay, filter, and scatter. By using the combination function, you can switch the effect type at each step.

- On each channel to which you want to apply the MASTER FX, press the [MFX] button to make it light.
- Select the MASTER FX type.

Effect Type	Explanation
DELAY	Delay is applied.
FILTER	Filter is applied.
SCATTER	"Scatter" adds a digital-feeling groove to the loop playback by exchanging individual steps within the loop playback and also by changing the playback direction or gate length.
FLANGER	Flanger is applied.
BIT CRUSH	Distorts the waveform, producing a distinctive noisy sound.
ROLL	Plays the sound repeatedly.

- To select a variation, hold down the button for the corresponding type and turn the [TEMPO] knob.

- Hold down the [TIME] button and turn the [TEMPO] knob to adjust the parameter.
- Turn the [MASTER FX] knob to adjust the depth.

- The MASTER FX effect is OFF when the [MASTER FX] knob is in the center position (▶ lit); turning the knob left or right applies the effect that's specified for each selected variation.

Switching the type at each step (Combination function)
The combination function lets you assign a MASTER FX type to each individual step, adding change to the sound.

- You can assign one type to each step.

- Press the [START/STOP] button.
- Press the [COMBI] button to make it light.
- Hold down the [COMBI] button and turn the [TEMPO] knob to select a pattern (combination of the MASTER FX). You can also edit the pattern.
- Turn the [MASTER FX] knob to adjust the depth.

Editing the pattern

- Press the [COMBI] button to make it light. The button of the MASTER FX type that's used by the pattern will light.
- While holding down the button of the MASTER FX type that you want to assign, press pads [1]-[16] to select the steps on which to apply MASTER FX. The pads to which MASTER FX applies are lit.
* When you edit the settings, the pattern is overwritten automatically.

MASTERING FX settings

The MASTERING FX applies to all of the audio input.

- If the sound distorts when you enable the MASTERING FX, lower the level of each channel until the sound is no longer distorted.

- Press the [MASTERING] button to make it light. The MASTERING FX is enabled.
- Hold down the [MASTERING] button and turn the [TEMPO] knob to select the type.

Auditioning the selected channel

You can audition the sound of the selected channel in your headphones. → "PHONES"

- Press the [SELECT] button of the channel whose sound you want to audition; the button lights.
→ "Mixer Section: [SELECT] button"
- Turn the [MIXING] knob to adjust the volume balance between the selected channel and the master output.
* Turning the knob toward SELECT, you can listen only to the sound of the selected channel.
- Turn the [LEVEL] knob to adjust the volume of the headphones.

Setting the AUX level

You'll use AUX when using an external effect device via a send/return connection.

- Press the CHANNEL SETTING [AUX] button to make it light.
- For each channel that you want to send to the AUX SEND jacks, press the [SELECT] button to make the button light.
→ "Mixer Section: [SELECT] button"
- Turn the [VALUE] knob to adjust the send level.
- Turn the [SEND] knob to adjust the output volume of the AUX SEND jacks.
→ "System Settings: AUX SEND routing"

Various Settings

Restoring the Factory Settings (Factory Reset)

- While holding down the [RECALL] button, turn on the power. The display indicates "r 5b" and the [START/STOP] button blinks.
- Press the [START/STOP] button to execute the factory reset.
- When the display indicates "C n P", turn the MX-1's power off, then on again.

System Settings

Here's how to change the MX-1's system settings.

- While holding down the [GAIN] button, turn on the power.
- Use the buttons, knobs and the pads to change the settings. The default values or states are marked with "*".

Settings	Operation	Value/ State	Explanation
Channel link	Press the channel 1 or 2 [SELECT] button	Channel 2 lit *	Supports monoaural input.
	Press the channel 3 or 4 [SELECT] button	Channel 4 lit *	Supports stereo input.
DIGITAL jack setting	Press the DIGITAL channel [SELECT] button	Unlit	The jack operates as an input jack.
USB audio frequency	Press the [BFX] button and turn the [VALUE] knob	44, 48, 96	Specifies the sampling rate (kHz). (Default: 96)
MIDI channel	Press the [SHUFFLE] button and turn the [TEMPO] knob	OFF, C 1-C 16	Specifies the MIDI transmit/receive channel. The display indicates the channel. (Default: 15)
		Off, n (Omni)	MIDI messages of all channels are received. The MIDI transmit channel will be 15.
LEVEL fader mode	Press the Pad [1]	Unlit (Jump) *	If you've recalled a scene memory and the physical position of a fader differs from the value that was recalled, fader movement is ignored until the fader passes through the recalled value.
		Lit (Pass through)	Output the sound before it is adjusted by the [LEVEL] fader (pre-fader send).
AUX SEND routing	Press the Pad [2]	Unlit *	Output the sound before it is adjusted by the [LEVEL] fader (pre-fader send).
		Lit	Output the sound after it is adjusted by the [LEVEL] fader (post-fader send).

Settings	Operation	Value/ State	Explanation
AUX RETURN routing	Press the Pad [3]	Unlit (Off) *	Specifies whether MASTER FX is applied to