



Owner's Manual



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Panel Descriptions	.2
About Batteries	.4
Before You Start	.5
Connecting the SP-404A to Your Speakers	. 5
Turning the Power On	. 6
Inserting an SD Card	. 7
Playing Sounds	.8
Playing Samples	. 8
Applying Effects	10
Playing Patterns	11
Adjusting the Tempo	12
Recording Samples—Basic Operation	13
STEP 1: Connecting Equipment	13
STEP 2: Sampling	15
Deleting a Sample	18

About SD Card	19
Formatting an SD Card	19
Saving Backup Data (Backup Save)	20
Loading Backup Data (Backup Load)	20
Deleting Backup Data (Backup Delete)	20
About the Protect Function	21
Restoring the Factory Settings (Factory Re	set).22
Error Message List	23
Specifications	24
USING THE UNIT SAFELY	25
IMPORTANT NOTES	25



PDF Manual (download from the Web)

· Reference Manual

This explains all functions of the unit.



To obtain the PDF manual

1. Enter the following URL in your computer.

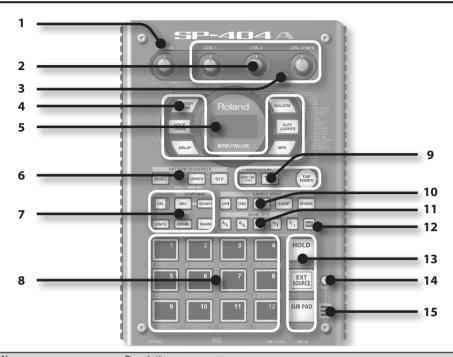
http://roland.cm/om



2. Choose "SP-404A" as the product name.

Before using this unit, carefully read "USING THE UNIT SAFELY" and "IMPORTANT NOTES" (the leaflet "USING THE UNIT SAFELY" and the Owner's Manual (p. 25)). After reading, keep the document(s) where it will be available for immediate reference.

Panel Descriptions



	Name	Description	Page	
1	[VOLUME] knob	This adjusts the volume.	p. 6	
		These knobs control effect parameters. You can also use each knob to make the following settings.	p. 10	
2		CTRL 1 The starting location of a sample The playback time of a sample	⇒ PDF	
	[CTRL 1]–[CTRL 3] knobs	The BPM (tempo) of the pattern The ending location of a sample	p. 12 ⇒ PDF	
		The type of MFX CTRL 3/MFX The sampling level The volume of the sample	p. 10 p. 16 → PDF	
3	PEAK indicator	Indicates the analog input level of the LINE IN jacks. Adjust the volume of your connected equipment so that this indicator lights occasionall	p. 16 y.	
4	Effect buttons	Use these buttons to select the effect you want to use.	p. 10	
	Display	This shows information such as the BPM (tempo), the values of various settings, and erromessages (p. 23).	or _	
5	Display illumination	This will blink in synchronization with the pattern's tempo. During sampling, this will light red if the level of the audio signal is excessive.		
	[SELECT] button	Press this when you want to play or record a pattern.	p. 11	
6	[LENGTH] button	Specifies the length of the pattern when recording a pattern.		
	[QTZ] button	Specifies quantization (automatic timing correction) when recording a pattern.		
	[DEL] button	Deletes a sample or pattern.	p. 18	
	[REC] button	Starts/stops sampling or pattern recording.	p. 15	
	[RESAMPLE] button	Applies an effect to the sound of a sample and resamples the result.	⇒ PDF	
7	[CANCEL] button	Cancels an operation such as sampling, pattern playback, or recording. By pressing this button four times in rapid succession, you can stop all sounds that are currently playing.	p. 9	
		Makes the display indicate the remaining time available for sampling.	ch p. 10	
	[REMAIN] button	In addition, you can hold down this button and press a pad to specify the sample to which you want to apply an effect, or to specify the sample whose settings you want to edit (modify current pad).		
	[MARK] button	Use this button when you want to play only a portion of a sampled sound.	⇒ PDF	

	Name	Description	Page
8	Pads [1]–[12]	When you press these pads, you'll hear the samples that are assigned to the pads. If the [SELECT] button is lit, the pads will select patterns.	p. 8 p. 11
	[START/END/LEVEL] button	Use this button when you want to change the playback start/end points of a sample or to adjust its volume.	⇒ PDF
9	[TIME/BPM] button	Use this button when you want to specify a sample's playback time or BPM (tempo).	p. 12
9	[TAP TEMPO] button	You can change the tempo by pressing this button several times at the desired timing. To temporarily stop the production of sound, hold down the [SHIFT] button while you press the [TAP TEMPO] (PAUSE) button.	p. 12 p. 9
	[LO-FI] button	Switches the sample's playback quality (standard/lo-fi).	p. 9
	[STEREO] button	Specifies whether you'll be sampling in monaural or in stereo.	p. 15
10	[GATE] button	Switches between Gate playback (the sample will play only while you hold down the pad) and Trigger playback (the sample will alternate between play and stop each time you press the pad).	
	[LOOP] button	Switches between Loop playback (the sample will play repeatedly) and One-Shot playback (the sample will play only once).	
	[REVERSE] button	Switches to Reverse playback, in which the sample will play backward.	p. 9
11	[BANK] buttons	Use these buttons to switch between sample or pattern banks.	p. 8
12	[SHIFT] button	Use this button to make various settings.	⇒ PDF
	[HOLD] pad	This pad allows you to have a sample keep playing even after you take your finger off the pad.	p. 9
13	[EXT SOURCE] pad	This pad plays the sound of the external (line or mic) input.	→ PDF
	[SUB PAD] pad	This pad plays the sample of the pad you struck most recently.	p. 9
14	[MIC] button	This button switches the mic input on/off.	p. 14
15	Internal mic	This is the SP-404A's built-in mic. If you connect your own mic (sold separately) to the MIC jack of the top panel, this internal mic will not function.	p. 14



	Name	Description	Page
16	PHONES jack	You can connect stereo headphones here to listen to the same sound as from LINE OUT jacks.	p. 5
17	SD card slot	Insert an SD card here. There is a cover on the SD card slot, and this cover is fastened in place with a screw when the SP-404A is shipped from the factory. Remove the screw as described in "Remove the card lock screw to detach the card cover!" (p. 7).	p. 7
18	[MIC LEVEL] knob	This adjusts the volume of the SP-404A's internal mic or a mic connected to the MIC jack.	p. 16
19	MIC IN jack	You can connect a mic (separately sold) to this jack.	p. 14
20	Functional ground terminal	If necessary, connect this terminal to an external electrical ground.	-
21	DC IN jack	Connect the included AC adaptor here.	p. 5
22	[POWER] switch	This turns the power on/off.	p. 6
23	MIDI IN jacks	You can connect a MIDI device to this connector.	→ PDF
24	LINE IN jacks	Here you can connect your portable music player or other audio source device from which you want to sample.	p. 13
25	LINE OUT connector	Connect your amplified speakers or mixer system here.	p. 5
26	Security slot (🛱)	http://www.kensington.com/	-

About Batteries

Remove the battery compartment cover located on the bottom of the SP-404A, and insert the batteries in the correct polarity (direction) as marked inside the battery compartment. Then close the cover securely.

NOTE

Battery handling

If you handle batteries improperly, you risk explosion and fluid leakage. Make sure that you carefully observe all of the items related to batteries that are listed in "USING THE UNIT SAFELY" and "IMPORTANT NOTES" (leaflet "USING THE UNIT SAFELY" and Owner's manual (p. 25)).

· 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.

When the batteries run low

When the batteries run low, the display's illumination will turn off, and the dot in the lower right of the display and the [SHIFT] button will start blinking. If the batteries run down completely, "L a" appears in the display and no further operations will be possible. If this occurs, replace the batteries immediately.

(MEMO)

When the remaining battery capacity decreases, the sound may be distorted when the [VOLUME] knob is in certain positions. If this occurs, replace the batteries.

Types of Batteries That Can Be Used with the SP-404A

You can use the following types of batteries with the SP-404A.

Do not use any other type of batteries.

- · Alkaline AA SIZE Dry Battery
- Ni-MH AA SIZE Rechargeable Battery



Specifying the type of batteries used

You'll need to specify the type of batteries you're using (alkaline or Ni-MH rechargeable). The SP-404A will calculate its remaining battery power based on the setting you make here.

- While holding down the [SHIFT] button, turn on the power.
- 2. Turn the [CTRL 3] knob to specify the type of batteries you're using.

The [REC] button will blink when you turn the knob.

Value	Description
RL	Alkaline battery
Ωı	Rechargeable Ni-MH battery

3. Press the [REC] button to confirm the setting.

MEMO

This setting will be remembered even while the power is turned off.

Checking the Remaining Battery Power

Make sure that the [SELECT] button is unlit.

If it's lit, press the [SELECT] button to turn it off.

2. Press the [REMAIN] button.

While you hold down the button, the remaining battery power is indicated by the number of BANK buttons that are lit. If only the BANK [A/F] button is lit, it's time to replace the batteries. A while after this indication, the display will indicate "L a," and it will no longer be possible to operate the SP-404A.

MEMO

When the power is on with the AC adaptor connected, all of the [BANK] buttons will be lit.

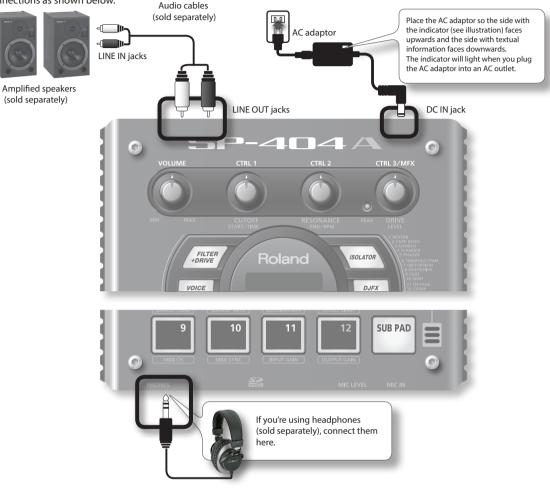
About Sleep Mode

If you've selected the "5 L P" (sleep) setting in "Display illumination and sleep settings" (→ PDF), all of the SP-404A's buttons will go out when it has not been operated for approximately five minutes, and it will enter Sleep mode. This will extend the battery life when operating on batteries.

Before You Start

Connecting the SP-404A to Your Speakers

Make sure that the SP-404A and your amplified speakers (which we'll simply call "speakers") are powered off, and then make connections as shown below.



NOTE

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

Turning the Power On

 Minimize the volume of the SP-404A and your speakers.

Turn the SP-404A's [VOLUME] knob all the way to the left.



2. Turn the SP-404A's [POWER] switch ON.



NOTE

This unit is equipped with a protection circuit. A brief interval (a few seconds) after power up is required before the unit will operate normally.

- 3. Turn on the power of your speakers.
- 4. Adjust the volume.

While striking the pads of the SP-404A to produce sound, slowly turn the [VOLUME] knob toward the right, and adjust the volume on the SP-404A and on your speakers.



Turning the Power Off

- Minimize the volume of the SP-404A and your speakers.
- 2. Turn off the power of your speakers.
- 3. Turn the SP-404A's [POWER] switch OFF.

Auto Off setting

The power to this unit will be turned off automatically after a predetermined amount of time has passed since it was last used for playing music, or its buttons or controls were operated (Auto Off function).

If you do not want the power to be turned off automatically, disengage the Auto Off function .

NOTE

- Any settings that you are in the process of editing will be lost when the power is turned off. If you have any settings that you want to keep, you should save them beforehand.
- To restore power, turn the power on again.
- While holding down the BANK [A/F] button, turn on the power.
- 2. Turn the [CTRL 3] knob to select the desired setting for the Auto Off function.

Value	Explanation
oFF	The Auto Off function will not be used.
ЧНг	The SP-404A will automatically be switched off four hours after you stop operating the unit.

Press the [REC] button to confirm your selection.

MEMO

The setting you make here will be retained even while the power is off.

Inserting an SD Card

If you insert a commercially available SD card into the SP-404A, you'll be able to sample for longer times.

This section explains how to insert an SD card; however, when you purchase the SP-404A, an SD card containing the factory-set preload data is already inserted, so the procedure described here won't be necessary.

Remove the card lock screw to detach the card cover!

When the SP-404A is shipped, the card cover is locked by a screw installed at the location marked "CARD LOCK" on the bottom panel. To remove the card cover, you must first use a Phillips screwdriver to remove the CARD LOCK screw. The screw was placed there for stability during transportation from the factory; you can discard it without reusing it.



NOTE

- Take care that the screw you removed is not accidentally swallowed by small children.
- When turning the unit upside-down, get a bunch of newspapers or magazines, and place them under the four corners or at both ends to prevent damage to the buttons and controls. Also, you should try to orient the unit so no buttons or controls get damaged.
- · Never insert or remove an SD card while this unit's power is on. Doing so may corrupt the unit's data or the data on the SD card.

Remove the card cover from the front panel.



2. Insert the SD card into the slot, and replace the cover.



Carefully insert the SD card all the way in—until it is firmly in place.

SD cards usable with the SP-404A

The SP-404A supports SDHC/SD cards up to a capacity of 32 GB.



Preparing an SD card for use

Before you can use a commercially available SD card with the SP-404A, you must format it as described in "Formatting an SD Card" (p. 19). However, **do not format the SD card that was included with the SP-404A**. All of the preload data on the card will disappear if you format the included SD card.

* Some SD card types or SD cards from some manufacturers may not record or play back properly on the unit.

The SD card must be unlocked!

The SP-404A will be unable to function properly if the SD card is locked. ("L \square " will appear in the display.) Make sure that the SD card is not locked.



Removing an SD Card

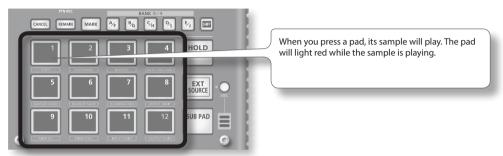
- Press the SD card inward.
- 2. Grasp the card and pull it out toward yourself.

Playing Sounds

Playing Samples

What's a sample?

Samples are pieces of sampled (recorded) sound together with their loop settings, etc. That are assigned to the twelve pads. You can play a sample by pressing the corresponding pad [1]–[12].



What's a sample bank?

A sample bank is a set of twelve samples assigned to the pads. The SP-404A has ten sample banks, A-J.



How many samples can play simultaneously?

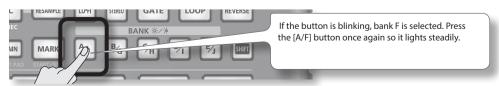
The SP-404A can play 12 monaural samples or 6 stereo samples simultaneously. While resampling (\Rightarrow PDF), the maximum is 4 monaural or 2 stereo samples.

The SD card inserted when the SP-404A is shipped from the factory has samples assigned to pads of some sample banks. You'll probably want to start by listening to these.

1. Make sure that the [SELECT] button is extinguished.



2. Press the BANK [A/F] button so the button is lit.



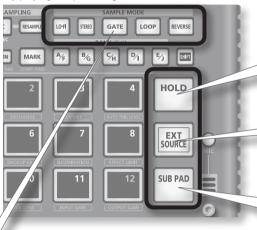
Press a pad to play its sample.



That pad will blink while its sample is playing.

You can press two or more pads to play them simultaneously.

Try playing samples using the functions described below.



Holding a sample

While holding down a pad, press the [HOLD] pad to make the sample continue playing even after you release the pad. To stop the sample, press the pad once again.

Playing the sound of the external input

This pad plays the sound from the LINE IN jacks or mic input (→ PDF).

Repeated strikes

When you press the [SUB PAD] pad, the same sample as the previously pressed pad will play. This makes it easy to use both hands to play rapid notes in succession.

Viewing or editing the sample settings

These buttons indicate the sample settings of the pad you pressed most recently (the "current pad"). You can change the sample settings by pressing these buttons

* With the factory settings, the samples in some banks of the included SD card are protected, and cannot be edited. For details on how to turn off the protect setting, refer to "About the Protect Function" (p. 21).

Button	When lit	When not lit
LO-FI	Play back with a lo-fi sound	Play back with the standard sound
GATE	Sample playback will stop when you release the pad	Sample playback will continue even if you release the pad
LOOP	Play back repeatedly (looped)	Play back once (not looped)
REVERSE	Play backward	Play normally

Pausing the sound (PAUSE)

Hold down the [SHIFT] button and press the [TAP TEMPO] (PAUSE) button; the sound will pause, and button operations will be disabled except for the operation of resuming playback.

To resume playback, once again hold down the [SHIFT] button and press the [TAP TEMPO] (PAUSE).



If the sound won't stop!

If the sound won't stop, Press the [CANCEL] button four times in rapid succession. All of the SP-404A's sounds will stop.



Applying Effects

The SP-404A contains 29 types of effects. As an example, here's how to apply the "FILTER + DRIVE" to a sample.

- 1. Press a pad to play its sample.
- 2. Press the [FILTER + DRIVE] button.



Use these buttons to switch effects (to switch an effect off, get the button's light to go out). You can't apply multiple effects simultaneously.

You can use any of the following ways to change the effect selected by MFX.

Hold down the [MFX] button and turn the [CTRL 3] knob

Hold down the [MFX] button and press a pad [1]-[12] (MFX 1-12)

Hold down the [MFX] and [DJFX LOOPER] buttons and press a pad [1]–[12] (MFX 13–24)

3. Turn the [CTRL 1]-[CTRL 3] knobs to adjust the effect.

Knob	Display	Result
CTRL 1	□ F (CUTOFF)	Adjusts the filter's cutoff frequency.
CTRL 2	r € 5 (RESONANCE)	Adjusts the filter's resonance.
CTRL 3	dィU (DRIVE)	Adjusts the amount of drive (distortion).

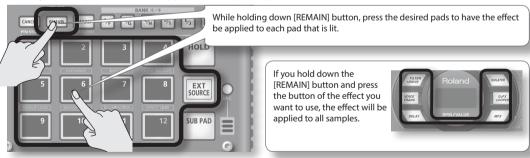
For details on each effect, refer to "Effect List" (→ PDF).

Pre-specifying parameters for the effect you'll use next

Hold down the [REMAIN] button and turn the [CTRL 1]–[CTRL 3] knobs to edit the parameters. When you next press an effect button, that effect will be applied with the parameter values you pre-specified.

Applying an effect to multiple samples

Normally, the effect will be applied only to the pad you pressed most recently. However, by making use of [REMAIN] button, you can set it so an effect is applied to multiple samples.



Applying an effect only while you hold down the button (EFFECT GRAB)

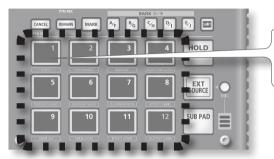
If you hold down the [TAP TEMPO] (EFFECT GRAB) button and press an effect button, the effect will be applied only while you hold down that effect button. This is a way to quickly turn an effect on/off in time with your performance.



Playing Patterns

What's a pattern?

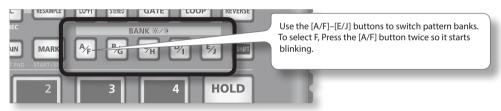
The SP-404A lets you successively play several samples by pressing a pad, and create a song by recording this performance. Such a succession of samples is called a "pattern."



Pads to which a pattern is assigned will blink red. When you press a blinking pad, the pattern will play.

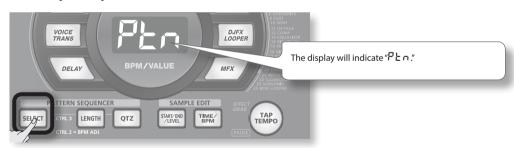
What is a pattern bank?

A "pattern bank" is a set of twelve patterns assigned to the pads. The SP-404A has ten pattern banks, A-J.



On the factory-installed SD card, patterns are assigned to pads of some pattern banks. You'll probably want to start by listening to these.

1. Press the [SELECT] button so it's lit.



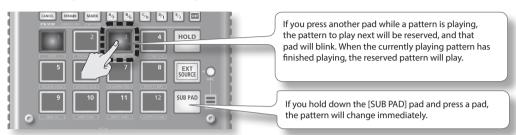
Press the BANK [A/F] button so the button is lit.



3. Press a pad, and the pattern will play.



4. Press another pad to reserve the next pattern.



5. Press the currently playing pad, and the pattern will stop playing.

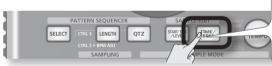


For details on how to create a pattern, refer to "Recording a Pattern" (>> PDF).

Adjusting the Tempo

Here's how to change the playback tempo of the pattern.

1. Press the [TIME/BPM] button so it's lit.



MEMO

If the [SELECT] button is lit, you'll be changing the pattern's tempo. If the [SELECT] button is extinguished, you'll be changing the current sample's tempo.

2. Turn the [CTRL 2] knob.



The display will indicate the tempo in terms of the BPM, and the pattern playback tempo will change.

Permissible values for the BPM range from 40 up to 200. However, if the BPM is within the 40–60 or 160–180 ranges, it can be set only in even-numbered values. If the BPM is above 180, you can set it to either 180, 183, 186, 190, 193, 196, or 200.

You can also set the tempo by pressing the [TAP TEMPO] button several times at quarter note intervals of the desired tempo.

3. Once you've specified the tempo, press the [TIME/BPM] button to turn it off.

What's BPM?

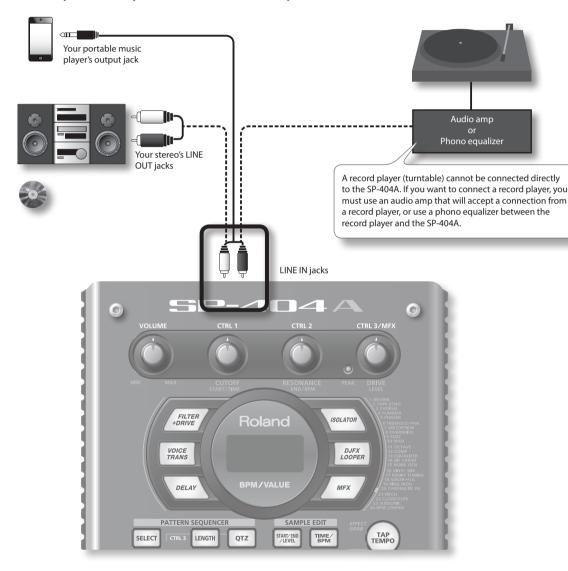
This stands for Beats Per Minute, which is the number of quarter-note beats played in one minute.

Recording Samples—Basic Operation

STEP 1: Connecting Equipment

Connecting a Portable Music Player or Stereo

If you're connecting your portable music player, stereo, or CD player, use audio cables to connect your device's output jacks (LINE OUT jacks, AUX OUT jacks, etc.) to the SP-404A's LINE IN jacks.

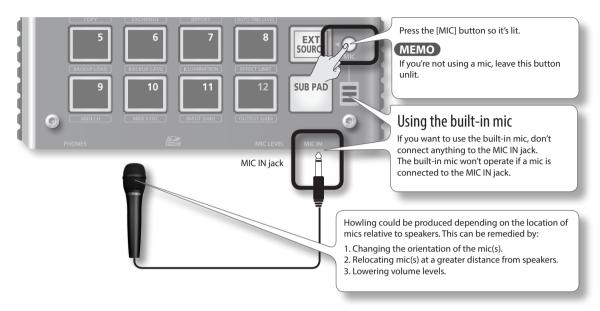


Caution when making connections

- To prevent malfunction and/or damage to speakers or other devices, always turn down the volume, and turn off the power on all devices before making any connections.
- When connection cables with resistors are used, the volume level of equipment connected to the inputs (LINE IN) may be low. If this happens, use connection cables that do not contain resistors.

Connecting a Mic

To use a mic, connect it to the MIC IN jack, then press the [MIC] button so it's lit.



STEP 2: Sampling

Here we'll explain how to use Sampling to record to pad [1] of bank J.

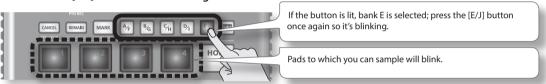
1. Make sure that the [SELECT] button is extinguished.



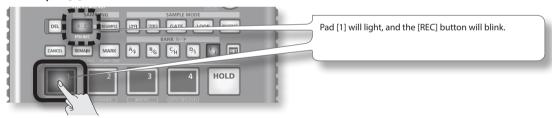
2. Press the [REC] button so the button is lit.



3. Press the BANK [E/J] button so it's blinking.



4. Press the pad [1].



5. Make STEREO setting.



How this affects the sampling time

Sampling in monaural will give you approximately twice as much sampling time as stereo. Monaural sampling also allows you to play twice as many samples simultaneously (12 monaural samples, or 6 stereo samples).

Applying an effect while you sample

By pressing an effect button at this time, you can sample the sound processed by the effect.



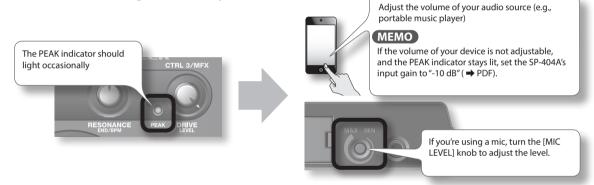
MEMO

In this case, you can use the [CTRL 1] and [CTRL 2] knobs to adjust the effect settings. Because the [CTRL 3] knob is used to adjust the digital input level, it cannot be used to adjust the effect settings.

- 6. Adjust the recording level
 - 6-1. Produce sound on the device that's connected to the SP-404A (if you're using a mic, vocalize into the mic).

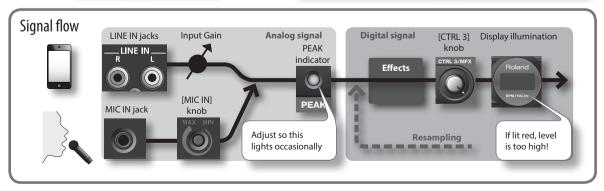


6-2. Adjust the volume of the device (e.g., portable music player) connected to the SP-404A so that the PEAK indicator lights occasionally.



6-3. If the display illumination lights red, the internal digital input level is excessive; turn the [CTRL 3] knob toward the left until the display does not illuminate red.





7. Produce sound on the device that's connected to the SP-404A, and Press the [REC] button when you want to start sampling.



NOTE

Never turn off the power while sampling is in progress. If you turn off the power, not only the sample being recorded but also other samples may also be destroyed.

8. When you want to stop sampling, press the [REC] button.



If the display indicates "FUL"

In the following cases, the display will indicate "F LL"," and sampling will end automatically.

- When there is no remaining free space on the SD card
- When the sample currently being recorded exceeds 2 GB (approximately 180 minutes in stereo)
- 9. Press the pad [1] to play back the sound you just sampled.



If the sample included an unwanted portion

If there is unwanted sound or silence at the beginning or end of the sample, you can make settings so that only the desired portion will be heard.

For details, refer to "Adjusting the Playback Region of a Sample" (→ PDF).

If you want to re-record the sample

Delete the sample as described in "Deleting a Sample" (p. 18) on the following page, and then re-record the sample.

Deleting a Sample

If you are not satisfied with the sound you sampled, use the following procedure to delete it, and then sample the sound again.

1. Press the [DEL] button.



2. The display will indicate "dEL," and the pads that can be deleted will blink.



3. Press the pad that you want to delete.



4. Press the [DEL] button to delete the sample.



NOTE

Never turn off the power before the deletion is complete. When the deletion is complete, the "dRL" indication in the display will disappear.

About SD Card

MEMO

For details on recommended SD cards, and on how to insert or remove an SD card, refer to "Inserting an SD Card" (p. 7).

For details on SD card capacity and available sampling times, refer to "About the Available Sampling Times" (→ PDF).

Formatting an SD Card

NOTE

- When you format an SD card, all data on that card will be erased.
- Do not format the SD card included with the SP-404A!

The included SD card contains preload data. All of this data will be lost if you format the included SD card.

Restoring the included SD card to the factory-set condition

To restore the SD card included with the SP-404A to its factory-set condition, refer to "Restoring the Factory Settings (Factory Reset)" (p. 22)

 While holding down the [CANCEL] button, press the [REMAIN] button.

The [BANK] buttons will blink, and the display will indicate "F Π F "

2. Press any one of the [BANK] buttons.

The [BANK] buttons will change from blinking to lit, and the [DEL] button will blink.

MEMO

If you decide not to format the card, press the [CANCEL] button.

3. Press the [DEL] button.

The [DEL] button will light, and formatting will begin.

During the formatting process, the dot in the display will blink.

When the blinking stops, formatting is complete.

NOTE

- Never turn off the power while the dot is blinking. Doing so may damage the SD card, rendering it unusable.
- Don't modify or delete the files or folders that are created when an SD card is formatted. The SP-404A will not recognize the card correctly if you do so.

Saving the contents of an SD card to your computer

Use a commercially available card reader to copy the entire contents of the SD card to your computer.

Copying to another SD card

For example, if you've used up all the available space on a 1 GB SD card, you can copy your data to a higher-capacity card (such as a 16 GB one) that you've purchased. Proceed as follows.

- Copy the entire contents of the 1 GB SD card to your computer.
- 2. Format the purchased SD card on the SP-404A (p. 19).
- 3. Using your computer, copy the data you copied in step 1 to the SD card you formatted in step 2, overwriting any files that were on the card.

Saving Backup Data (Backup Save)

This operation will save backup data (all data including sample banks and pattern banks) to the SD card. You can save up to 12 backups.

MEMO

If you've saved numerous samples and patterns on a card, and it doesn't have much space remaining, you'll only be able to save a small number of backup sets.

1. Hold down the [SHIFT] button and press the pad [6] (BACKUP SAVE).

The display will indicate "5月以," and the pads to which backup data has not been saved will blink.

2. Select the desired save-destination pad.

The selected pad will light, the other pads will go out, and the [REC] button will light.

MEMO

If you decide to cancel, press the [CANCEL] button.

3. Press the [REC] button.

The [REC] button will light, and the backup save operation will be executed. During execution, the dot in the display will blink. When the blinking stops, the backup save operation has been completed.

NOTE

Never turn off the power while the dot is blinking. Doing so may destroy the SD card.

Loading Backup Data (Backup Load)

This operation will load backup data (all data including sample banks and pattern banks) from the SD card.

NOTE

Once you execute the Backup Load procedure, all of your existing samples and patterns will be overwritten by the backup data as it is loaded.

Hold down the [SHIFT] button and press the pad [5] (BACKUP LOAD).

The display will indicate "L a d," and the pads to which backup data has been saved will blink.

(MEMO)

- If the memory is protected (p. 21), the display will indicate "Pr L" (Protected) and the backup load operation cannot be executed.
- If there is no backup data on the SD card, the display will indicate "E \(\P\) " and the backup load operation cannot be executed.

Press a pad to select the backup data that you want to load.

The selected pad will light, and the other pads will go out. The [REC] button will blink.

MEMO

If you decide to cancel, press the [CANCEL] button.

3. Press the [REC] button.

The [REC] button will light, and the backup load operation will be executed. During execution, the dot in the display will blink. When the blinking stops, the backup load operation has been completed.

NOTE

Never turn off the power while the dot is blinking. Doing so may destroy the SD card.

Deleting Backup Data (Backup Delete)

This operation will delete backup data on the SD card.

- Hold down the [SHIFT] button and press the pad [5] (BACKUP LOAD) to access the Backup Load screen.
- 2. Press the [DEL] button.

The display will indicate "bd'L," and the pads to which backup data has been saved will blink.

Press a pad to specify the backup data you want to delete.

The selected pad will light, and the other pads will go out. The [DEL] button will blink.

MEMO

If you decide to cancel, press the [CANCEL] button.

4. Press the [DEL] button.

The [DEL] button will light, and the backup delete operation will be executed. During execution, the dot in the display will blink. When the blinking stops, the Backup Delete operation has been completed; you will return to the Backup Load screen.

NOTE

Never turn off the power while the dot is blinking. Doing so may destroy the SD card.

About the Protect Function

You can protect an SD card so that the samples and patterns on the card cannot be overwritten or deleted accidentally.

NOTE

On the SD card included with the SP-404A, sample banks and pattern banks contain preload data and are protected. If you cancel protection for these banks, it is possible that the data may be overwritten or deleted. If you want to restore the SD card to its factory-set state, refer to "Restoring the Factory Settings (Factory Reset)" (p. 22).

Protecting All Samples and Patterns

 While holding down the [REMAIN] button, turn on the power.

The display will indicate "P.an," and the samples and patterns of banks A–J will be protected.

NOTE

If you use an SD card with the same SP-404A, the card banks will also be protected, but the card will not be protected when used with your computer.

MEMO

This setting is retained even while the power is turned off

Cancelling Protection for All Data

1. While holding down the [CANCEL] button, turn on the power.

The display will indicate "P, $\Box F$," and protection will be cancelled for the samples and patterns of banks A–J.

MEMO

- Protection will be cancelled for the factory-set samples and patterns.
- This setting is retained even while the power is turned off.

Protecting an Individual Bank

- Press the [SELECT] button to select the type of data (samples or patterns) that you want to protect.
 - To protect sample banks, the [SELECT] button needs to be extinguished.
 - To protect pattern banks, the [SELECT] button needs to be lighted.
- Press the [BANK] button to select the bank that you want to protect.
- Hold down the [SHIFT] button and press the [REMAIN] button.

The display will indicate "P.on."

The [REC] button will blink.

MEMO

If you decide to cancel, press the [CANCEL] button.

4. Press the [REC] button.

The selected bank will be protected.

Cancelling Protection for an Individual Bank

- Press the [SELECT] button to select the type of data (samples or patterns) for which you want to cancel protection.
 - To cancel protection for a sample bank, the [SELECT] button needs to be extinguished.
 - To cancel protection for a pattern bank, the [SELECT] button needs to be lighted.
- Press the [BANK] button to select the bank for which you want to cancel protection.
- Hold down the [SHIFT] button and press the [CANCEL] button.

The display will indicate "P.o.F."

The [REC] button will blink.

MEMO

If you decide to cancel, press the [CANCEL] button.

4. Press the [REC] button.

Protection will be cancelled for the selected bank.

Restoring the Factory Settings (Factory Reset)

This operation will restore the SD card's sample and pattern data, as well as the SP-404A's internal settings and data to their factory-set condition. In order to perform this operation, you'll need a computer and a commercially available card reader.

NOTE

When you perform this operation, the sample and pattern data of all banks, as well as the SP-404A's internal settings will all be lost. If you wish to keep any of this data, you must back it up before proceeding (p. 20).

 Prepare an SD card that has been formatted on the SP-404A (p. 19).

If you're using the SD card that was included with the SP-404A, or an SD card that is currently being used with the SP-404A, there's no need to format the card.

2. While holding down the [CANCEL] button, turn on the power to cancel all protection.

The display will indicate "P. = F" indicating that protection has been turned off for all samples and patterns.

- 3. Switch off the SP-404A's power.
- Using your computer, copy the "FCTRY" folder to the root directory (the top level) of the SD card.

MEMO

- The SD card included with the SP-404A already has the "FCTRY" folder, so step 4 will not be necessary.
- For details on downloading the "FCTRY" folder, refer to the Roland website.

http://www.roland.com/support/

- The "FCTRY" folder contains the factory-set preset data.
- Insert the SD card into the SP-404A, and while holding down the [CANCEL], [REMAIN], and [DEL] button buttons, turn on the power.

The display will indicate ", , , , , and the [REC] button will blink.

MEMO

If you decide not to proceed with this Factory Reset operation, you can simply turn off the power at this point.

If you're sure that you want to restore the SP-404A to its factory-set state, press the [REC] button.

The [REC] button will light, and the dot in the display will blink. When the operation has been completed, the blinking will stop.

NOTE

Never turn off the power while the dot is blinking. Doing so may destroy the SD card.

MEMO

If you're using the SD card included with the SP-404A or an SD card that is being used with the SP-404A, and are executing this procedure from step 2, the backup data on the card will not be erased by this procedure.

Erasing the sample/pattern data of all banks

By executing this procedure starting with step 5 with an SD card that has no "FCTRY" folder, you can make the sample and pattern data of all banks be empty. The internal settings of the SP-404A itself will be the factory settings.

Restoring only the SP-404A's internal settings to the factory-set state

By executing step 5 and following without inserting an SD card, you can restore only the internal settings to their factory-set state.

Error Message List

Message		Description
EJE	Eject	Processing is not possible because the SD card was removed. * Don't remove the card while the power is on.
LoE	Lock	The SD card is locked. The SP-404A will be unable to function properly if the SD card is locked. ("L $_{\alpha}$ E" will appear in the display.) Make sure that the SD card is not locked (p. 7).
		There is no sample, pattern, or backup data to delete.
ENP	Empty	There is no backup data to load.
		There is no WAV or AIFF to import.
Err	Error	Invalid data was found, and it was repaired or deleted.
FUL	Memory Full	Processing could not be performed because of insufficient memory. While sampling, the sample exceeded 2 GB (approximately 180 minutes for stereo). Sampling was stopped.
PrE	Protected	Processing could not be performed because Protect is enabled. If you want to continue the operation, turn off Protect as described in "About the Protect Function" (p. 21).
Un5	Unsupported format	Processing was halted because the WAV or AIFF was in a format not supported by the SP-404A.

Specifications

Roland SP-404A: Linear Wave Sampler

Maximum Polyphony	12 voices				
Recordable Data	Samples: 120 (12 samples x 10 banks) (stored on SD card)				
necordable Data	Patterns:	120 (12 patterns x 10 banks) (stored or	SD card)		
	The maximum sampling time (size) for a single sample is approximately 180 minutes in stereo (2 GB). The following table shows the approximate total sampling time of the samples that can be stored on one SD card.				
Sampling Time	Card capacity	Stereo (mono)	Card capacity	Stereo (mono)	
(Total Time for All Samples)	1 GB	Approx. 90 min. (180 min.)	8 GB	Approx. 720 min. (24 hours)	
	2 GB	Approx. 180 min. (360 min.)	16 GB	Approx. 24 hours (48 hours)	
	4 GB	Approx. 360 min. (720 min.)	32 GB	Approx. 48 hours (96 hours)	
		GB SD card included with the SP-404A on the time above.	contains prelo	ad data, the available sampling time wi	
Data Format	16-bit Line	ar (.wav/aiff)			
Sampling Frequency	44.1 kHz				
	Maximum i	ecordable notes: Approx. 16,000 notes			
D. 11	Resolution:	96 ticks per quarter note			
Pattern Sequencer	Pattern Len	gth: 1–99 measures			
	Recording	method: Realtime Loop Recording (with	shuffle quant	ize function)	
Effects	29 types				
Pads	12 + Sub pad x 1				
Controllers	Control Knob x 3				
Display	7 segments	7 segments, 3 characters (LED)			
Onboard Mic	Mono x 1				
	LINE IN jacks (L, R) (RCA phono type)				
	LINE OUT jacks (L, R) (RCA phono type)				
	PHONES jack (Stereo 1/4-inch phone type)				
Connectors	MIC IN jack (1/4 inch phone type)				
	MIDI IN connector				
	DC IN jack				
	SD card slot				
Power Supply		or Alkaline battery (AA, LR6)/Recharge sold separately	able Ni-MH ba	ttery (AA, HR6) x 6	
	Rechargeable Ni-MH battery: Approximately 5 hours (When using batteries having a capacity of 1,900 mAh.)				
Battery Life for Continuous Use	Alkaline battery: Approximately 4 hours				
	* These figures will vary depending on the actual conditions of use.				
Current Draw	450 mA				
Dimensions	178 (W) x 257 (D) x 73 (H) mm 7 (W) x 10-1/8 (D) x 2-7/8 (H) inches				
Weight	1.2 kg/2 lbs	11 oz (excluding AC adaptor)			
	SD Card				
Accessories	AC Adaptor				
Accessories	Leaflet "USING THE UNIT SAFELY"				
	Owner's Manual				

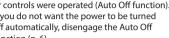
^{*} This document explains the specifications of the product at the time that the document was issued. For the latest information, refer to the Roland website.

USING THE UNIT SAFELY

WARNING

Concerning the Auto Off function

The power to this unit will be turned off automatically after a predetermined amount of time has passed since it was last used for playing music, or its buttons or controls were operated (Auto Off function). If you do not want the power to be turned off automatically, disengage the Auto Off function (p. 6).



Use only the supplied AC adaptor and the correct voltage

Be sure to use only the AC adaptor supplied with the unit. Also, make sure the line voltage at the installation matches the input voltage specified on the AC adaptor's body. Other AC adaptors may use a different polarity, or be designed for a different voltage, so their use could result in damage, malfunction, or electric shock.

WARNING

Use only the supplied power cord

Use only the attached power cord. Also, the supplied power cord must not be used with any other device.



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.



Removable Parts

CARD LOCK screw (p. 7)

Handle the ground terminal carefully

If you remove the screw from the ground terminal, be sure to replace it; don't leave it lying around where it could accidentally be swallowed by small children. When refastening the screw, make that it is firmly fastened, so it won't come loose.

IMPORTANT NOTES

Power Supply: Use of Batteries

- · If operating this unit on batteries, please use alkaline batteries, rechargeable Ni-MH **batteries**
- · Even if batteries are installed, the unit will turn off if you connect or disconnect the power cord from the AC outlet while the unit is turned on, or if you connect or disconnect the AC adaptor from the unit. When this occurs, unsaved data may be lost. You must turn off the power before you connect or disconnect the power cord or AC adaptor.

Placement

· Depending on the material and temperature of the surface on which you place the unit, its rubber feet may discolor or mar the surface.

Repairs and Data

· Before sending the unit away for repairs, be sure to make a backup of the data stored within it; or you may prefer to write down the needed information. Although we will do our utmost to preserve the data stored in your unit when we carry out repairs, in some cases, such as when the memory section is physically damaged, restoration of the stored content may be impossible. Roland assumes no liability concerning the restoration of any stored content that has been lost.

Additional Precautions

- · Any data stored within the unit can be lost as the result of equipment failure, incorrect operation, etc. To protect yourself against the irretrievable loss of data, try to make a habit of creating regular backups of the data you've stored in the unit.
- · Roland assumes no liability concerning the restoration of any stored content that has
- · Do not use connection cables that contain a built-in resistor.

Using External Memories

- · Please observe the following precautions when handling external memory devices:
 - · Do not remove the device while reading/writing is in progress.
- · To prevent damage from static electricity, discharge all static electricity from your person before handling the
- · Avoid touching the terminals and protect them from contact with metallic objects; make sure they stay clean.
- · Do not bend, drop, or apply strong force to the device.
- · Do not leave the device in locations where it may be exposed to direct sunlight, or in environments such as a tightly closed motor vehicle.
- · Prevent the device from getting wet.
- · Do not disassemble or modify the device.

Intellectual Property Right

- · It is forbidden by law to make an audio recording, video recording, copy or revision of a third party's copyrighted work (musical work, video work, broadcast, live performance, or other work), whether in whole or in part, and distribute, sell, lease, perform, or broadcast it without the permission of the copyright owner.
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MEMO