ELEC T RIBE S

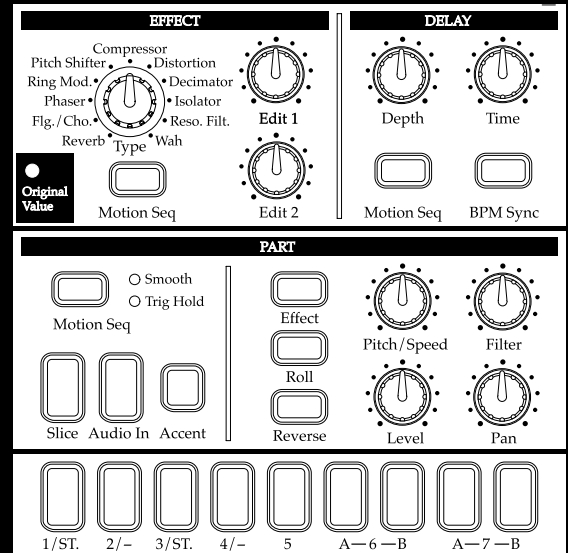## RHYTHM PRODUCTION SAMPLER

ES-1
Owner's Manual

Thank you purchasing the Korg
ELECTRIBE·S ES-1. In order to
enjoy long and trouble-free use,
please read this manual carefully
and use the instrument correctly.

KORG

Ⓔ ③

To ensure long, trouble-free operation, please read this manual carefully.

Precautions

Location

Using the unit in the following locations can result in a malfunction.
- In direct sunlight
- Locations of extreme temperature or humidity
- Excessively dusty or dirty locations
- Locations where excessive vibration exists

Power supply ⊕-ⓒ-⊖

Please connect the designated AC adaptor to an AC outlet of the correct voltage. Do not connect it to an AC outlet of voltage other than that for which your unit is intended.

Interference with other electrical devices

This product contains a microcomputer. Radios and televisions placed nearby may cause reception interference. Operate this unit at a suitable distance from radios and televisions.

Handling

To avoid breakage, do not apply excessive force to the switches or controls.

Care

If the exterior becomes dirty, wipe it with a clean, dry cloth. Do not use liquid cleaners such as benzene or thinner, cleaning compounds or flammable polishes.

Keep this manual

After reading this manual, please keep it for later reference.

Keeping foreign matter out of your equipment

- Never set any container with liquid in it near this equipment. If liquid gets into the equipment, it could cause a breakdown, fire, or electrical shock.

- Be careful not to let metal objects get into the equipment. If something does slip into the equipment, unplug the AC adaptor from the wall outlet. Then contact your nearest Korg dealer or the store where the equipment was purchased.

Concerning data

In rare cases, incorrect operation may cause the contents of memory to be lost. Please save important data on separately sold SmartMedia™ cards or on a data filer (storage device). Korg Corporation can accept no responsibility for any damages resulting from loss of data.

Contents

1. Introduction

Thank you for purchasing the **ELECTRIBE•S** (also referred to as the **ES-1**).

The **ES-1** is an easy to use and unique rhythm production sampler that uses DSP synthesis technology to allow anyone from beginners to professionals to create truly original music. You can assign sampled sounds to parts, use the panel knobs and keys to process the sound intuitively, and use these sounds to easily create rhythm patterns.

The **ES-1** is the ideal tool for any musician, DJ, sound creator, or DTM user who wants more originality in their musical creations.

Main features

- A rhythm production sampler in which samples recorded by the user can be assigned to ten sample parts (including one Slice Sample part). The sound of each part can be processed as desired.

- Up to 150 sounds (100 monaural, 50 stereo) sampled by the user can be saved in internal memory (to a maximum total of 95 seconds of monaural sampling).

- Parts (created by editing samples) can be combined with rhythms to create patterns, letting you use the **ES-1** as a totally new type of rhythm machine.

- Up to 128 patterns (maximum of 64 steps) can be created using the Sample data and stored in internal memory.

- The **ES-1** provides a Motion Sequence function that can record and loop knob movements, and can be recorded for each part of each pattern.

- The sixteen step keys (grid) provide the ideal way to step-record rhythm patterns. It's also easy to record in realtime.

- Since sounds and rhythm patterns can be modified instantly, you can use these changes as part of your performance expression.

- By combining multiple patterns and adding event data such as knob movements, you can create and save up to sixteen songs.

- Eleven types of effects and delay are provided.

- The Pattern Set play function lets you register 64 different patterns to the 16 step keys, and successively select and play them.

- Tap Tempo and MIDI Clock can be used to synchronize the performance with an external sequencer, turntable, etc.

- The **ES-1** can be controlled from an external sequencer or keyboard as a MIDI sound module.

- Sample sounds, patterns, and songs you create can be stored on SmartMedia™.

- WAVE files or AIFF files you created on a computer etc. can be loaded and used as samples.

The data you create on the ES-1

The samples, patterns, and songs you create (edit) on the **ES-1** will return to their previous state if you re-select them or turn off the power before performing the Write operation.

If you wish to save recorded samples or edited patterns, songs, or global data, you must be sure to perform the Write operation. Be aware that once the Write operation has been performed, it is no longer possible to return the sample, song, and pattern data to their factory settings. If you do not want to loose the factory preset patterns and songs, purchase an appropriate SmartMedia™ card and use the Save operation to make a backup.

Make connections and play!

Example connections

Adapter cable holder

Power switch

AC Local Voltage
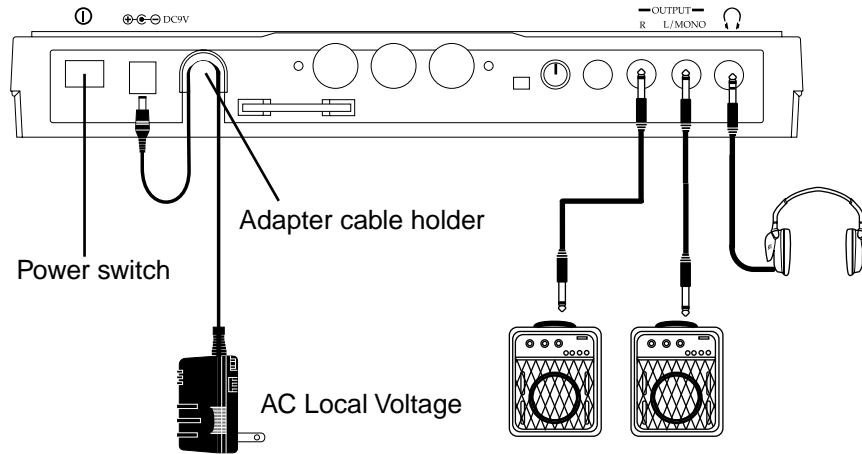
Preparing to play

⚠ **Be sure to turn off the power before making connections. Careless operation may damage your speaker system or cause malfunctions.**

1. Connect the included AC adapter to the **DC 9V** jack, and plug the adapter into an AC outlet.

⚠ **As shown in the above diagram, hook the AC adapter cable around the adapter cable holder. When removing the cable from the holder, do not use excessive force.**

2. Connect one end of your audio cables to the line out jacks of the **ES**-**1** (**L/MONO**, **R**), and connect the other end to your mixer or powered monitor speakers (amplified speakers) etc. If you will be listening in mono, use the **L/MONO** jack. To take full advantage of the **ES-1**'s sound quality, we recommend that you listen in stereo.

3. If you will be using headphones, connect them to the headphone jack.

⚠ **The output from the line out jacks will not be switched off even if headphones are plugged in.**

Master volume
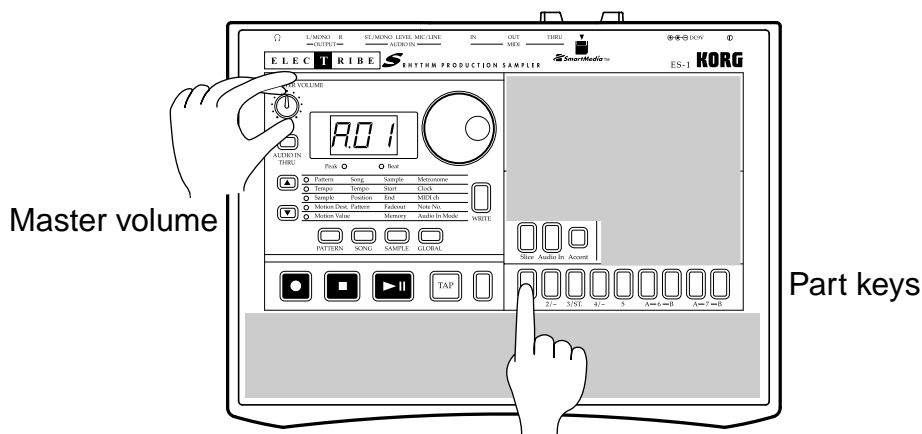
Part keys

4. When you have finished making connections, turn on the power. Slightly raise the master volume of the **ES**-**1**, and strike the part keys (1...7B, Slice) to check whether connections have been made correctly. Use the master volume of the **ES**-**1** and the gain and fader controls of your mixer or powered monitor system to adjust the volume to an appropriate level.

2. Front and rear panel

The controls and other parts of the ES-1 each
fall into one of six groups:

Connector section

Common section

Effects section

Sequence control section

Part edit section

Part select section

Step key section

Common section

1. MASTER VOLUME

This knob adjusts the volume that is output from
the line out jacks and the headphone jacks.

2. AUDIO IN THRU

This key sends the external output directly to the
line out jacks and headphone jack.
When this key is on, the Pan, Level, Filter, Effect,
and Roll of the Audio In part will have no effect.

3. Display

This shows the value of the currently selected pa-
rameter, and various messages.

4. Dial

Use this to modify the value shown in the display.

5. Peak LED

This indicates the peak level for the input signal from the audio in jacks. Adjust the
output level of your external device so that the LED lights only at the maximum level.

6. Beat LED

This will blink at quarter-note intervals to indicate the tempo.

7. [▲][▼] (cursor keys)

In each mode, use these keys to select parameters from the matrix shown in the display.

8. Matrix

The parameters that will appear in the display are listed here for each mode. Use the
cursor keys to make the desired parameter select LED light.

9. Mode keys

Use these keys to move to the desired mode: **Pattern**, **Song**, **Sample**, or **Global**. Dur-
ing playback you can move to Global mode, but not to Sample mode.

10. WRITE (WRITE key)

This key is used to save the contents that you modified in Pattern, Song, Sample, and
Global mode, to save Pattern Set data, and to save sample data that you sampled.

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Effect section

1. EFFECT

Here you can select the effect type, and control the effect.

- **Type**: Select the effect type.
- **Edit 1**: Adjust the effect. The result will differ depending on the type of effect.
- **Edit 2**: Adjust the effect. The result will differ depending on the type of effect.
- **Motion Seq** (motion sequence): This lets you record and play back movements of the **Edit 1** and **Edit 2** knobs. Each time you press this key, the setting will alternate between **on** (lit) and **off** (dark).
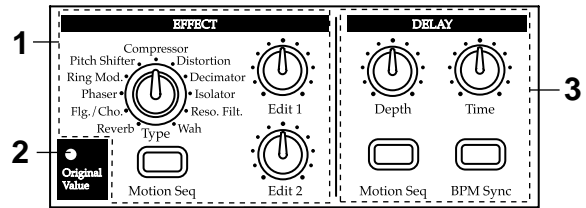
2. Original Value (LED)

This will light when the knob etc. that you are currently moving arrives at the same position as the original value of the sound in the pattern.

3. DELAY

Here you can control the delay effect.

- **Depth** (delay depth): Adjust the depth of the delay.
- **Time** (delay time): Adjust the delay time.
- **Motion Seq** (motion sequence): This lets you record and play back movements of the **Depth** and **Time** knobs. Each time you press this key, the setting will alternate between **on** (lit) and **off** (dark).
- **BPM Sync**: This selects whether the delay time will automatically be matched to the tempo. Pressing this key will alternate between **on** (lit) and **off** (dark).

Part Edit section

1. Motion Seq (motion sequence)

This key lets you record and play back knob movements for each part. Each time you press this key, the setting will alternate between **on** (**Smooth** lit), **on** (**Trig Hold** lit), and **off** (dark)
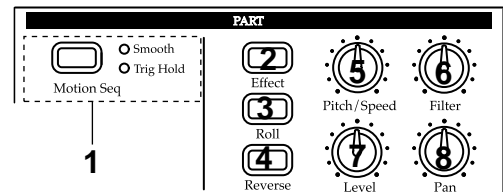
2. Effect

For each part, this key switches the effect **on** (lit) or **off** (dark).

3. Roll

For each part, this key switches the roll effect (successive strikes) **on** (lit) or **off** (dark).

4. Reverse

For each part, this key turns reverse playback **on** (lit) or **off** (dark).

5. Pitch/Speed

This knob adjusts the pitch of the sample. For the Audio In part, it sets the gate time (duration of the sound).

6. Filter

This knob adjusts the cutoff frequency of the low pass filter.

7. Level

This knob adjusts the level. For the Accent part, it adjusts the accent level.

8. Pan (panpot)

This knob sets the stereo location of the sound.

2. Front and rear panel

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Part Select section

1. Slice (slice sample part key)
This key selects the Slice Sample part. You can press this key to hear the assigned slice sample.

2. Audio In (audio in part key)
This key selects the Audio In part. You can press this key to hear the external input sound.

3. Accent (accent part key)
This key selects the Accent part.

4. 1—5, 6A-6B, 7A-7B (sample part keys)
These keys select sample parts. When you press one of these keys, you will hear the sample that is assigned to the corresponding part.

Sequence Control section

1. Rec key
This key records rhythms or knob movements. If you press this key during recording, recording will be halted, and playback will continue. By holding down the Pattern Set key and pressing the Rec key, you can sample the sound of the external input or the sound that is playing.

2. Stop/Cancel key
This key stops pattern playback, song playback, sampling, or sample playback, and is also used to halt execution of an operation.

3. Play/Pause key
This key starts∕pauses playback of a pattern or song, and plays samples.

4. TAP/Part Mute key
Use this key to enter a tap tempo. During playback, you can hold down this key and press a Part key to mute the specified part.

5. Solo key
During playback, you can hold down this key and press one or more Part keys to playback the specified part(s).

Step Key section

1. Select key

By pressing these keys to turn the Select LEDs on or off, you can use the sixteen step keys for up to 64 steps.In Song mode, these keys function as rewind and fast-forward keys. When the Pattern Set function is on, they are used to switch Pattern Set groups.

2. Select LEDs

The upper row of LEDs (green) indicates the location (length 1...4) within the pattern of the currently-playing rhythm pattern.
The lower row of LEDs (red) indicates the location (length 1...4) of the rhythm pattern indicated by the step keys. When the Pattern Set key is on, these LEDs indicate the pattern set group.

3. Step keys 1...16

Use these keys to modify and audition the rhythm pattern of each part. When the Pattern Set function is on, use these keys to select patterns that have previously been asigned to these keys.

4. Pattern Set key

By holding down this key and pressing one of the step keys, you can switch to the pattern that you registered for that key.
If you hold down this key and press the Rec key, the **ES-1** will enter sampling-ready mode. If a pattern or song is playing back, sampling will begin immediately.

5. Shift key

This key is used in conjunction with other keys. When held down, it gives an additional function to another key.

Shift + **Play/Pause key**: Playback from the beginning of the pattern.
Shift + **Rec key**: During playback, erase triggers from the pattern.
Shift + **Part keys**: Select a part without sounding it.
Shift + **Step keys**: Execute the function shown below each step key.
Shift + **dial**: Switch the units that are displayed during tempo editing or sample editing.
Shift + **pattern set key**: The Pattern Set function will be held (maintained).

For other Shift key combinations, refer to the explanation of each parameter.

2. Front and rear panel

Connector section

1. Power switch
This switch turns the power on/off. Each time you press it, the power will alternate between on or off.

2. DC 9V
Connect the included AC adapter here.

3. Adapter cable holder
Hook the adapter cable around this so that it will not be disconnected accidentally.

4. SmartMedia™ slot
A SmartMedia™ card can be inserted into this slot. Use this when you wish to save or load **ES-1** data.

5. MIDI connectors
　IN　　MIDI data is received at this connector to control the **ES-1** from an external MIDI device or to receive a data dump.
　OUT　MIDI data is transmitted from this connector to control an external MIDI de vice or to transmit a data dump.
　THRU　MIDI data received at the **MIDI IN** connector is re-transmitted without change from this connector. This is used to "daisy-chain" multiple MIDI devices.

6. MIC/LINE (gain select switch)
This switches the input gain of the audio input. When a mic is connected, set this to the MIC position. Otherwise, set this to the LINE position.

7. LEVEL (input level)
This adjusts the input level of the audio input.

8. ST./MONO (audio in jack)
This jack is used for the audio in part. The sound that is input here will be used as the sound of the **Audio In** part select key. If the input source is stereo, use a stereo phone jack to make connections.

9. L/MONO, R (line output) jacks
Connect your audio cables from these jacks to your mixer or powered monitor system (powered speakers) etc. If you wish to make monaural connections, connect the **L/ MONO** jack.

10. ⌒ (headphone jack)
A set of stereo headphones fitted with a stereo 1/4" jack plug can be connected here.

3. Basic operation (Quick Start)

Conceptual diagram of the ES-1

On the **ES-1**, a song consists mainly of a sequence of patterns (each with parts to which samples have been assigned, and effect and delay settings) plus event data (☞p.51 "Recording performances and knob movements in a song (Event Recording)").

Structure of Song

Songs: S01...S16

Pattern order	Event data
A03	Part Solo
B53	Part Mute
B07	Part Trigger
A06	.
A52	.
B17	.
.	
.	
.	
End	

Patterns: A01...D64

Pattern data	Part data
Tempo	Sample 1
Length	Sample 2
Beat/Scale	Sample 3
	Sample 4
Effect	Sample 5
	Sample 6A
Delay	Sample 6B
	Sample 7A
	Sample 7B
	Slice Sample
	Audio In
	Acc

Sample(Total max 95 sec.)

Mono: 00. 01. 02. 03. 04. 05. 06. 07. 08.
Stereo: 00.S 01.S 02.S 03.S

Part

Parameter	Rhythm pattern	Motion sequence
Sample No.		
Effect On/Off		
Pitch/Speed		
Filter		
.		
Pan		
Level		

Effect

Type	Parameter	Motion sequence
Reverb	Edit 1	
Flg./Cho.	Edit 2	
.		
.		
Wah		

Delay

Type	Parameter	Motion sequence
Normal	Delay Depth	
BPM Sync	Delay Time	

Listening to a Song

1. Press the Song Mode key to enter Song mode (the key will light).

2. Use the cursor [▲][▼] keys to make the parameter select LED indicate **Song** (the top LED).

3. Rotate the dial to select the desired song (**S01...S16**).

4. Press the Play/Pause key to playback the song (the key will light). When the song ends, playback will stop automatically (the key will go dark).

To pause during playback, press the Play/Pause key (the key will blink). To resume playback, press the Play/Pause key once again (the key will light). To stop playback, press the Stop/Cancel key.

◢ **It is not possible to change songs during playback.**

Stop/Cancel key

What is a Song?

On the **ES-1**, a song is musical data consisting of Patterns arranged in the desired playback order. The **ES-1** lets you create and store up to sixteen songs. In each song you can arrange up to 256 patterns, and rhythm and knob movements can also be recorded in addition to the playback. (☞p.48 "Song mode.")

Song

Pattern(A03)	Pattern(B01)	Pattern(A01)	Pattern(A02)

3. Basic operation (Quick Start)

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Listening to a Pattern

1. Press the Pattern mode key to enter Pattern mode (the key will light).

2. Use the cursor [▲][▼] keys to make the parameter select LEDs indicate **Pattern** (top).

3. Rotate the dial to select the desired pattern (**A01...A64, b01...b64**).

4. Press the Play/Pause key to playback the pattern (the key will light). When pattern playback ends, the pattern will return to the beginning, and continue playing repeatedly.

To pause during playback, press the Play/Pause key (the key will blink). To resume playback, press the Play/Pause key once again (the key will light). To stop playback, press the Stop/Cancel key.
You can rotate the dial to select patterns regardless of playback status.

> 📝 **When you change patterns during playback, the change will actually occur at the end of each pattern. (☞p.33 "The timing at which patterns will change.")**

What is a Pattern?

A pattern is a unit of musical data consisting of sounds arranged in a rhythm. On the **ES-1** you can create and save 128 patterns.
Each pattern consists of eleven parts (☞p.15). In addition to the sounds of each part, you can also record rhythms and knob movements (☞p.33 "Pattern mode").
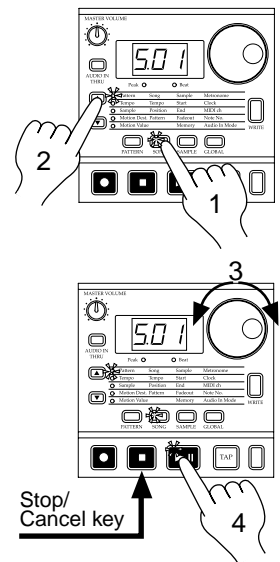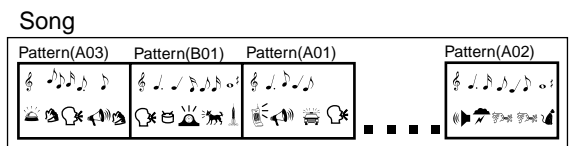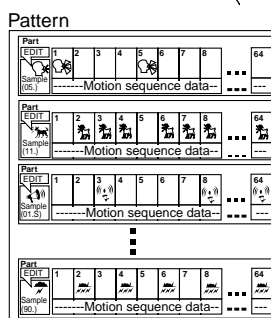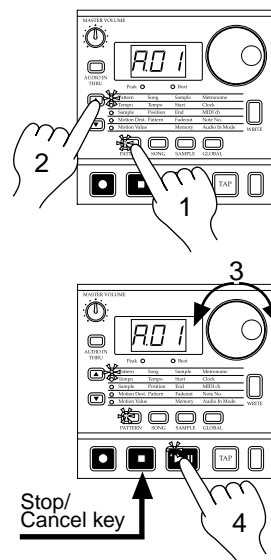
Listening to a Sample

1. Press the Sample Mode key to enter Sample mode (the key will light).

2. Use the cursor keys [▲][▼] to make the parameter select LED indicate **Sample** (top).

3. Rotate the dial to select the sample number. Samples with only a number such as "**00.**" are monaural sounds; samples with an "**S**" after the number are stereo sounds; and samples with an "**ıı**" after the number are slice sample sounds (☞p.24, 30).

4. To hear the sample sound, press the Play/Pause key or a sample part key 1—7B.

To stop playback before it has finished, press the Stop/Cancel key.

> 📝 **If you press the Play/Pause key during playback, the sample will play from its beginning.**

In Song mode or Pattern mode, you can hear a sample by pressing the part key to which the sample has been assigned. (☞p.15 "Pressing keys to hear the sound of a Part")
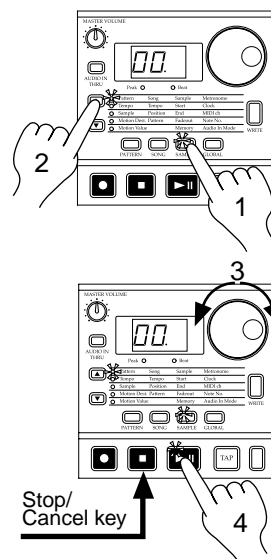
What is a Sample?

A "Sample" is a sound that has been recorded, or a sound that has been recorded and then processed. A sample can be assigned to each Part (☞p.15). The **ES-1** lets you create and save up to 150 samples (100 monaural, 50 stereo), as long as the maximum sampling area of 95 seconds is not exceeded. A stereo sample will occupy twice the sampling area of a monaural sample.
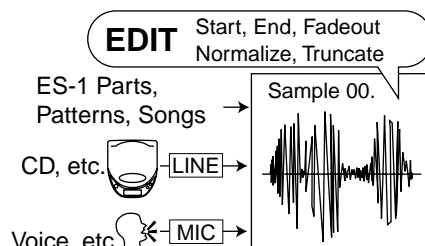
Trying out the functions

Changing the tempo of a song or pattern

The tempo that you change here will return to the original tempo when you stop playback and switch to a different pattern or song.

• Using the dial to change the tempo

1. Press the Mode key to enter Song mode or Pattern mode.

2. Use the cursor [▲][▼] keys to set the parameter select LED to **Tempo**.

3. Rotate the dial to change the tempo.

4. If you wish to adjust the tempo in more detail, you can hold down the Shift key and rotate the dial to modify the decimal portion of the value.

Change the tempo of a song

Change the tempo of a pattern
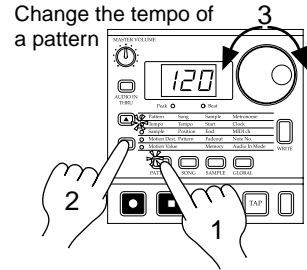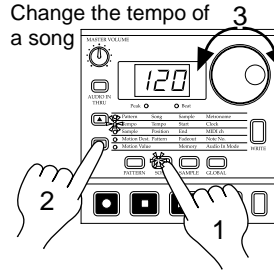
• Using the Tap Tempo key to change the tempo

While a song or pattern is playing, press the Tap key three times or more at the desired tempo. The **ES**-**1** will detect the interval at which you pressed the Tap key, and will set the tempo accordingly. The tempo can also be changed in this way even if the **ES**-**1** is not currently playing a song or pattern.
Use the cursor [▲][▼] keys to make the parameter select LEDs indicate **Tempo**, and the tempo you modified will appear in the display.

Three times or more
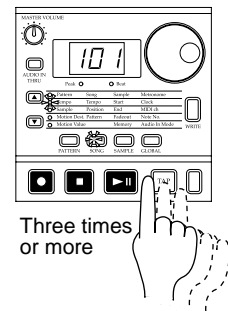
Striking keys to play Parts

By striking the part keys, you can play the corresponding sounds.
The audio-in parts will sound when an audio signal is connected to the audio input jacks. (☞p.22, "Connecting various sources to the audio inputs.") However even if sound is being input, it will not be heard if Audio In Thru is turned on.
The sound of a part consists of an assigned sample that has been modified or processed, and will differ for each pattern. Rotate the dial to select various patterns, and listen to the wide variety of sounds.

✎ **Pressing the Accent Part key will not cause the Accent part to sound. If the sample assigned to sample part 1 or 3 is stereo, sample parts 2 or 4 will not sound. It is not possible to play both sample parts 6A and 6B simultaneously, or both 7A and 7B simultaneously. It is not possible to play a part to which a sample of "oFF" is assigned.**

What is a Part?

A Part is the smallest unit that makes up a Pattern, and consists of a sound and the timing (rhythm pattern) at which it is played, effect on/off settings, and motion sequence data. There are a total of twelve parts, as follows. (☞p.33 "Pattern mode")
• Sample parts (1—5, 6A-6B, 7A-B): A sample sound and a rhythm pattern.
• Slice Sample part: A sample sound and a rhythm pattern.
• Audio In part: A rhythm pattern for the external input.
• Accent part: A rhythm pattern that specifies the points of emphasis (accents) for the entire pattern.
The sound can be modified independently for each part, and the rhythm pattern, effect on/off settings, and motion sequence etc. are also stored individually for each part (☞p.35 "Editing the sound of a part").

Part

EDIT	1	2	3	4	5	6	7	8		64
Sample (90.)	----------Motion sequence data------								•••	---

Modifying (editing) the sound

1. Press a part key to select the part that you wish to edit.

2. Use the knobs and keys of the Part Edit section to edit the sound. The **Original Value LED** will light to indicate the position of the knobs and keys for the original settings of the sound.

The pattern sound that you modified here can be saved by the Write operation (☞p.20 "Saving a pattern you create").

> 🔧 **The knobs that are effective will depend on the pattern.**
> **If a motion sequence is controlling a knob, it may be difficult to edit the sound as you intend. If so, turn the motion sequence off while you are editing (☞p.41 "Motion sequences").**

What is the Part Edit section?

This is the section where the parameters assigned to the panel knobs and keys work together to edit the sound of each part. (☞p.35 "Editing the sound of a part.") The knobs that are valid for each part are as follows.
• Sample parts, Slice sample part : **Pitch/Speed, Filter, Pan, Level, Effect, Roll, Reverse**
• Audio In part : **Pitch/Speed** (functions as gate time), **Filter, Pan, Level**
• Accent part : **Level**

Editing the effect and delay settings

1. Press a part key to select a part for which changes in the effect can be easily heard.

2. Use the knobs and keys of the effect section to edit the effect. The original position of the effect knobs and keys is shown by the Original Value LED.

If you wish to save the pattern effect settings that you edit here, use the Write procedure (☞p.20 "Saving a pattern you create (Write)")

> 🔧 **If the Effect key is off (dark), press the effect key to turn the effect on (lit). The delay will always be on, regardless of the on/off setting of the Effect key.**

> 🔧 **The result of turning the knobs will depend on the effect type.**
> **If a motion sequence is operating on a knob and you are unable to edit the sound as you wish, turn off the motion sequence while you edit the sound (☞p.41).**

Striking the part keys along with a song or pattern

1. In Song mode or Pattern mode, press the Play/Pause key to begin playback.

2. As you listen to the song or pattern, strike the part keys to play along.

> 🔧 **If a stereo sample is assigned to part 1 or 3, pressing the part 2 or 4 key will not produce sound.**

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Editing the sound of a part, effect, or delay while hearing a song or pattern

1. In either Song mode or Pattern mode, press the Play／Pause key to begin playback.

2. Press a part key (the key will light) to select the part that you wish to edit.

3. Use the knobs or keys of the Part Edit section or Effect section to edit the sound. As you operate the knobs or keys, the sounds or effects being played will change.
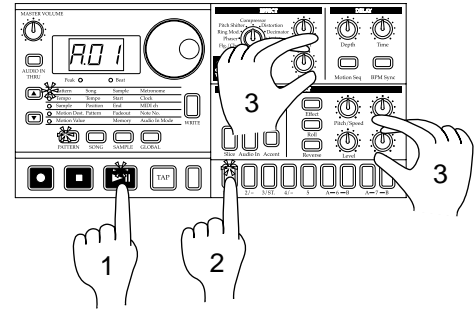
You can press another part key to edit another part.

The settings of the Effect section are shared by all parts.

If you wish to save the pattern sound settings that you edit here, use the Write procedure (☞p.20 "Saving a pattern you create (Write)")

If you re-select the pattern or turn off the power without performing the Write procedure, the sound will return to its un-edited state.

📌 **If a stereo sample is assigned to sample part 1 or 3, sample parts 2 or 4 will not sound.**

📌 **While a Song is playing, it is not possible to write edits made to the part sound, effect, or delay. It is only possible to write edits made to the part sound while a Pattern is playing.**

Modifying (editing) a rhythm pattern

What is a Rhythm Pattern?

A Rhythm Pattern is a sequence of rhythms (i.e., the timing at which a sound is heard) for an individual part. You can use the sixteen step keys to modify the rhythm pattern of each part. A rhythm pattern can also be recorded as you listen to the playback (realtime input). (☞p.27 "Creating a Rhythm Pattern.")

Rhythm pattern
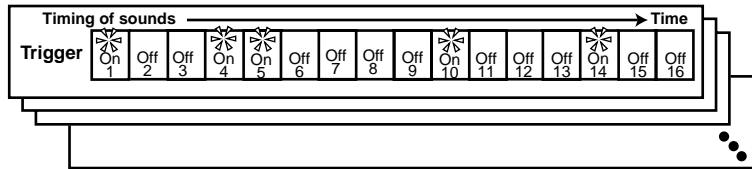
• Using the step keys to edit the rhythm (Step Recording)

1. Press the Pattern mode key (the key will light).
   Use the cursor [▲][▼] keys to set the parameter select LED to **Pattern**.

2. Rotate the dial to select the pattern that you wish to edit.

3. Press a part key (the key will light) to select the part that you wish to edit.

4. The step keys will light to indicate the rhythm of the selected part. You can press the step keys to modify the rhythm pattern. Each time you press a key, it will alternate between **on** (lit) and **off** (dark).
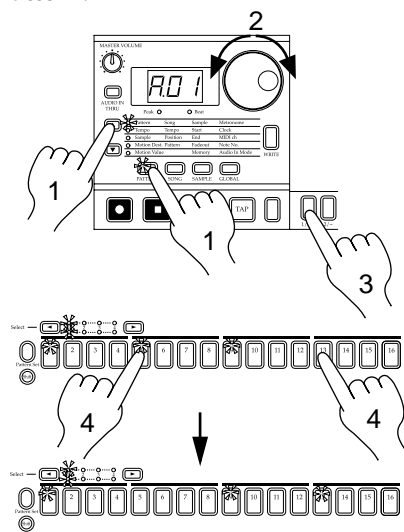
You can also playback the pattern while you select different parts and press the step keys to turn each step on or off.

In the case of a pattern with a length of 2 or greater, you can use the Select keys to move the select LED in the lower line (red) in order to change the step location that is shown by the step keys.

Length	Select LED display	Area shown by the step keys	
		For 16(♪ X 16), 32(♪ X 16)	For tri(♪₃ x 12), tr2(♪₃ x 12)
1		Steps 1...16	Steps 1...12
2		Steps 17...32	Steps 13...24
3		Steps 33...48	Steps 25..36
4		Steps 49...64	Steps 37...48

If you wish to save the completed pattern, press the **WRITE** key. (☞p.20 "Saving a pattern that you create.")

⚠ **If the Pattern Set key is on, the step keys will not display the rhythm pattern.**

What is Length?

In this context, "Length" refers to the length of the rhythm pattern.

The "Length" of the pattern will be either 16 steps or 12 steps, depending on the Scale and Beat settings of the pattern. A rhythm pattern in triple meter will be shown in triplets. Depending on the Length and Beat settings, a single pattern can have up to 64 steps. (☞p.38 "Length and Scale/Beat settings.")

Scale/Beat display	Note value of each step key	Pattern Length (number of steps)			
		=1	=2	=3	=4
16 (♪ X 16)	16th note	16	32	48	64
32 (♪ X 16)	32nd note	16	32	48	64
tri (♪₃ X 12)	8th note (triplet)	12	24	36	48
tr2 (♪₃ X 12)	16th note (triplet)	12	24	36	48

• Using the part keys to edit the rhythm (Realtime Recording)

If you wish to hear the metronome while you record, refer to p.53 "Metronome settings."

1. Press the Pattern Mode key (the key will light). Use the cursor [▲][▼] keys to make the parameter select LED indicate **Pattern**.

2. Rotate the dial to select the pattern that you wish to edit.

3. Press the Rec key to enter record-ready mode (the Rec key will light, and the Play/Pause key will blink).

4. Press the Play/Pause key to start the pattern (the Play/Pause key will light).

5. Strike the part keys at the desired rhythm. The pattern will continue playing back repeatedly, so you can continue recording additional material as long as the Rec key remains lit.

6. Press the Stop/Cancel key to stop recording. (The Rec key and Play/Pause key will go dark.) You can also press the Rec key without pressing the Stop/Cancel key, to stop recording but continue playback. (The Rec key will go dark, and the Play/Pause key will be lit.)
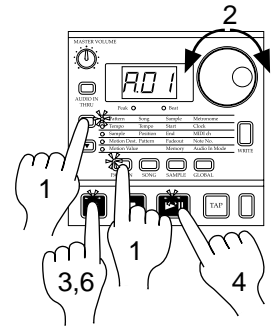
If you wish to save the pattern that you created, press the WRITE key. (☞ "Saving a pattern that you create," below.)

> ⚠ **The time that an audio part is heard (i.e., the gate time) is determined not by how long you continue pressing the key, but by the Pitch/Speed value (☞p.22 "Connecting various sources to the audio inputs").**
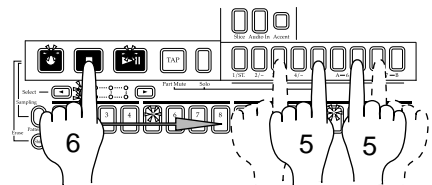
Erase

If you accidentally input a wrong note, you can hold down the Shift key and Rec key while the pattern continues playing to erase the rhythm pattern for the currently selected part (i.e., the part whose part key is lit).

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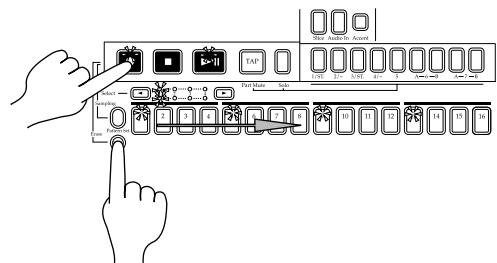
Saving a pattern you create (Write)

⚠ **Once the factory preset patterns are rewritten, it is not possible to restore them to their original state. If you do not want to loose the factory preset patterns, purchase a SmartMedia™ card and save the data (☞p.55) to create a backup.**

⚠ **With the factory settings, memory protect will be on, and it will not be possible to save data. Before you save data, you must turn off the Memory Protect settings in Global mode. (☞p.56 "Protect settings.")**
Please be aware that when you save data, the pattern in the save destination will be overwritten.

1. Edit a pattern as described in "Modifying the sound" or "Modifying (editing) a rhythm pattern."

2. Press the **WRITE** key once (the key will blink). The display will blink to indicate the pattern number.

3. Rotate the dial to select the pattern number in which the data will be saved (i.e., the "save destination").

4. Press the **WRITE** key once again to begin saving the data. While the data is being saved, the key will blink. When saving is complete, the key will go dark.
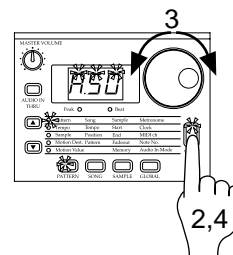
If you decide to cancel, press the Stop/Cancel key. If you do not wish to save the pattern you created, simply select a different pattern without performing the Write operation.

⚠ **Never turn off the power while data is being saved to memory (i.e., while the WRITE key is lit). Doing so may damage the data.**

⚠ **It is not possible to Write during playback or recording.**

Using a Motion Sequence

What is a Motion Sequence?

Changes that you make to the parameters of each part using the knobs and keys can be recorded and looped. These are called Motion Sequences.

A Motion Sequence lets you record either **Pitch/Speed**, **Filter**, **Level**, or **Pan**, and **Effect**, **Roll** and **Reverse** individually for each part. An Effect Motion Sequence and Delay Motion Sequence can be recorded individually for each pattern. (☞p.41 "Motion Sequence")

Motion sequences for **Effect**, **Roll**, **Reverse**, and the Accent part will always occur in **Trig Hold** mode.

The following knobs and keys are valid for each part.
- **Sample parts, Slice sample part : Pitch/Speed, Filter, Pan, Level, Effect, Roll, Reverse**
- **Audio In part : Pitch/Speed (functions as gate time), Filter, Pan, Level**
- **Accent part : Level**

As an example, here's how to record the **Pitch/Speed** parameter in a motion sequence.

1. In Pattern mode, select the pattern that you wish to edit.

2. Press the appropriate part key to select the part that you wish to edit.

3. Press the Motion Sequence key to select either **Smooth** or **Trig Hold**.

4. Press the Rec key to enter record-ready mode (the Rec key will light, and the Play/Pause key will blink).

5. Press the Play/Pause key to start the pattern (the Rec key and Play/Pause key will light).

6. Move the **Pitch/Speed** knob to create various changes while the pattern makes one cycle (16 steps x length, or 12 steps x length).

7. After the pattern has completed one cycle after you began moving the knob, the Rec key will automatically go dark and you will return to Play mode so that you can listen to the motion sequence that you just recorded.
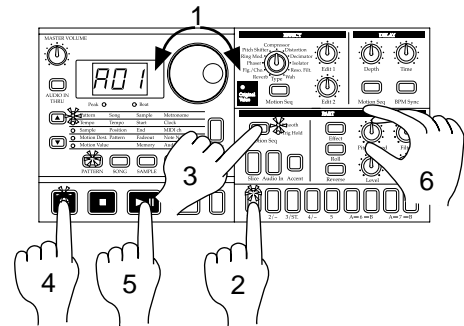
After pressing the Stop/Cancel key to stop playback, perform step numbers 2 and following for "Saving a pattern that you create" to save the pattern that contains the motion sequence you just recorded.

There are two types of motion sequence (**Smooth** and **Trig Hold**). During playback, switch between these to hear the difference. (☞p.41 "Playing a motion sequence.")

To edit a motion sequence after it has been recorded, use the Pattern mode **Motion Dest.** or **Motion Value** functions (☞p.45 "Editing motion sequence data").

In the case of a Part, the motion sequence will be valid for only one of the knobs Pitch/Speed, Filter, Level, or Pan. If you attempt to record a motion sequence using two knobs for the same part, the effect of the first knob or key will disappear (☞p.41 "Recording a motion sequence").

On/off settings for Effect, Roll, and Reverse will apply simultaneously.

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Connecting various sources to the audio inputs

Let's try connecting various types of audio devices (radio, MD or CD player or tone generator) to the audio input jacks.

Try out various types of sounds or music. Depending on the content, you may discover unexpectedly interesting results.

1. Connect an audio device to the audio in jack (**AUDIO IN**). Set the MIC⁄LINE gain select switch appropriately for the level of the connected device. The jack is a stereo phone plug. If necessary, use an adapter plug appropriate for the connected device. To switch between monaural and stereo, change the Global mode **Audio In Mode** setting (☞p.54).

2. Adjust the output level of the external device so that the peak LED does not light even when the connected device is producing its maximum output level. When making this adjustment, turn on the Audio In Thru key (the key will light) so you can hear the input sound without having to press the part key.

3. Select the pattern or song for which you wish to adjust the volume of the external input sound, and press the Play⁄Pause button to begin playback.

4. In the connection section, rotate the **LEVEL** knob to set the appropriate balance with the volumes of the other parts.
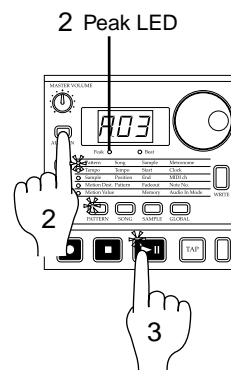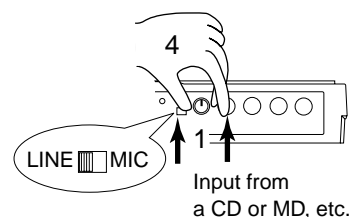
The input sound will be heard while you press the Audio In part key. The Audio In parts that are recorded in a pattern or song do not produce the sound that was being input when the parts were being recorded; they simply allow the sound that is received in the audio input at that moment to be heard from when the trigger is turned on, for the duration set by the **Pitch/Speed** knob.

Sound input from Audio In

Sound heard from Audio In (line output)

Pitch/Speed   Pitch/Speed   Pitch/Speed

Time

Trigger On   Trigger On   Trigger On

Trigger On   Trigger On   Trigger On

Time
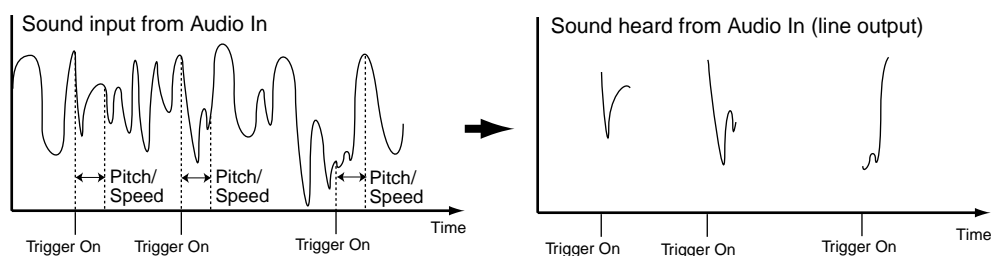
✎ **If you wish to strike Audio In keys to hear the sound, you must turn off the Audio In Thru key (the key will be dark).**
If the input gain setting is excessive, the sound may be distorted.

✎ **If you use a monaural cable to make connections, be sure to set the Audio In Mode switch to the monaural "L" position. If you use a stereo cable, be sure to set the switch to the stereo "St" position (☞p.54).**

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Let's record a sample

The **ES-1** makes it very easy for you to record a sample. Sampled sounds (samples) can be easily assigned to the parts of each pattern. The sampling area of internal memory can hold a maximum of 95 seconds, with up 150 samples (100 monaural, 50 stereo).

⚠ **If the factory preloaded samples are rewritten or erased, they cannot be restored to their original state. If you do not want to lose the factory preloaded samples, purchase a SmartMedia™ card and perform the Save operation (☞p.55) to make a backup.**

⚠ **If you run out of memory while sampling, sampling will stop automatically. Before you start sampling, use the Sample mode Memory function (☞p.32) to check the remaining amount of sampling time.**

Here's how to sample the output of an audio device (e.g., MD or CD).

1. Press the Sample mode key (the key will light).Use the cursor keys [▲][▼] to make the parameter select LED indicate **Sample**.

2. Connect the audio device that you wish to sample to the audio in jack (**AUDIO IN**). The jack is a stereo phone jack, but you may also use a monaural phone plug if desired. Use the Global mode **Audio In Mode** setting to switch between monaural and stereo (☞p.54).

3. In the connection section, set the MIC/LINE gain select switch to the **LINE** position.

4. Turn on the Audio In Thru key (the key will light) so that you can hear the input sound.

5. Either by adjusting the output level of the external device or by rotating the LEVEL knob, adjust the output level of the connected device so that the peak LED does not light even when the maximum output level is reached.

6. Hold down the Pattern Set key, and press the Rec key to enter sampling-ready mode. (The Rec key will light, and the Pattern Set key and Play/Pause key will blink.)

7. Rotate the dial to set the sampling mode either to stereo "**StE**" or monaural "**∏no**."

8. Press the Play/Pause key to begin sampling at the desired moment. (The Rec key, Pattern Set key, and Play/Pause key will light.)

9. When you press the Stop/Cancel key, sampling will end. (The Rec key, Pattern Set key, and Play/Pause key will go dark.)
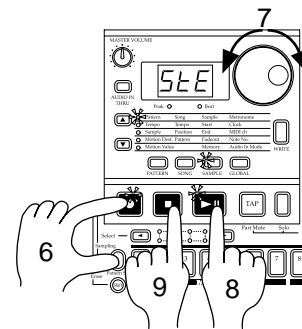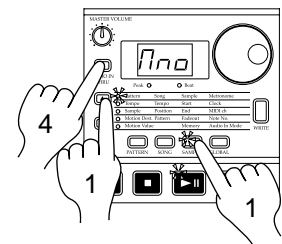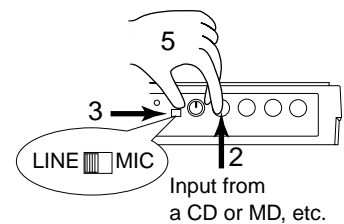
After sampling, the display will indicate "**- -.**" (or in the case of stereo, "**- -.S**") to indicate that a new sample has been recorded.

By pressing the Play/Pause key you can hear the recorded sample.
If you wish to save the sample you recorded here, you can perform the Write operation (☞p.32 "Saving a sample (WRITE)"). If you do not wish to save the sample you recorded, simply switch samples or record another sample without performing the Write operation.

There are other ways in which you can record a sample, or modify the sound of a sample after recording it. For details refer to p.27 "Sample mode."

3. Basic operation (Quick Start)

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About the Slice function

The sound of a saved sample can be automatically divided ("time-sliced") at intervals of the time axis. A sample sound processed this way is called a Slice Sample.

Slice samples are indicated by a "ıı" following the sample number in the display. (For example, "**01.ıı**" means that a slice sample has been saved in 01.) Only a slice sample can be assigned to the Slice Sample part. For details refer to p.30 "Slice."

Sample sound

| Boom, clatter, crack, slap ... |

Time slice

| Boom | | clatter | clatter | crack | | crack | | slap | |
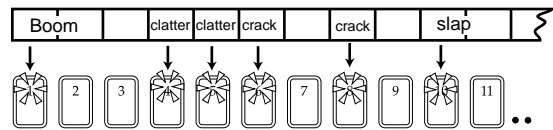
About the Resample function

Part sounds, patterns, and songs that you create on the **ES-1** can themselves be sampled to create a new sample sound. This procedure is called Resampling.

This allows sample sounds processed by effects and delay to be used as a new sample, letting you create samples that have even greater tonal variation. For details refer to p.28 "Directly sampling the sound of the **ES-1** (Resampling)."

Assigning a sample sound to a sample part

Here's how to assign a sample ("**02.**" in this example) to the sample part of a pattern. In this example, we will assign the sample to Sample Part 1 of Pattern **A10**.

1. Enter Pattern mode and select Pattern **A10**. (☞"Listening to patterns.")

2. Press the Sample Part 1 key to select Sample Part 1.

3. Use the cursor keys [▲][▼] to make the parameter select LED indicate **Sample**.

4. Rotate the dial to select the desired sample sound. For this example, select sample number "**02.**"

5. When you press the Sample Part 1 key, you will hear sample "**02.**"

Start the pattern. The sound of Sample Part 1 has been changed to the sampled sound.

By doing this, you can change the sample assigned to a part simply by selecting a sample and pressing the Sample Part key to which you want to assign that sample.

If you wish to save the pattern of the part you just changed, use the Write operation (p.20 "Saving a pattern you create (Write)." If you do not wish to save it, simply select a different pattern.

⚠ **If the factory preset patterns or songs are rewritten or erased, they cannot be restored to their original state. If you do not want to lose the factory preset patterns or songs, purchase a SmartMedia card and perform the Save operation (☞p.55) to make a backup.**
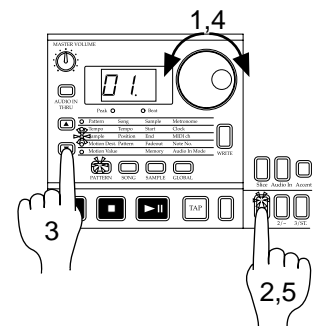
Playing with Pattern Set

What is Pattern Set?

Pattern Set is a function that lets you register a favorite pattern to each of the sixteen step keys, and use the step keys to switch patterns. You can use this function to play a performance simply by selecting patterns one after the other

When you hold down the Pattern Set key (the key will blink) and press one of the sixteen step keys, the pattern registered for that key will be selected. At this time you can use the Select keys to change the pattern set group indicated by the red select LEDs (lower line) 1…4, to use 16 x 4 (total of 64) pattern sets.

If during playback you hold down the Pattern Set key and press another step key, the pattern registered for that key will begin playing when the currently-playing pattern finishes playing. (☞p.46 "Pattern Set.")

If you hold down the Shift key and press the Pattern Set key, the Pattern Set function will be held. (The Pattern Set key will blink.)
To defeat this "hold" condition, press the Pattern Set key once again.

You can register new pattern sets. (☞p.46, "Registering a pattern for Pattern Set.")

Pattern Set 1

Pattern Set 3

Hold down the Shift key
and press the Pattern Set key
to hold the Pattern Set function.

> **If you switch patterns during playback, the change will occur when each pattern finishes playing. (☞p.33 "The timing at which patterns will changed.")**

Using the ES-1 as a tone generator module

Read this section when you wish to use the **ES-1** with other connected MIDI equipment.
Use a MIDI cable to connect the MIDI OUT connector of your MIDI keyboard etc. to the **MIDI IN** connector of the **ES-1**.

1. Press the Global mode key to enter Global mode.

2. Use the cursor [▲][▼] keys to make the parameter select LEDs indicate **MIDI ch**.

3. Set the channel of the transmitting device to match the channel of the **ES-1**. (☞p.54 "MIDI channel settings.")

4. Use the cursor [▲][▼] keys to make the parameter select LEDs indicate **Note No**. (☞p.54 "Setting the MIDI note number for each part.")

5. Press the desired part key, and the note number for that part will appear in the display.

When you transmit the corresponding note from the transmitting device, the sound of that part will be played.

> **For details on the ES-1's MIDI functionality, refer to p.57 "About MIDI."**

> **If you wish to save Global mode settings, you must perform the Write operation (☞p.56 "Saving Global mode settings (WRITE)").**

MIDI IN

MIDI cable

MIDI OUT

MIDI keyboard etc.
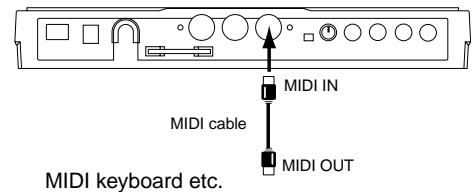
Set the MIDI channel
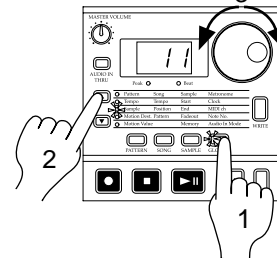
Check the Part Note Number

25
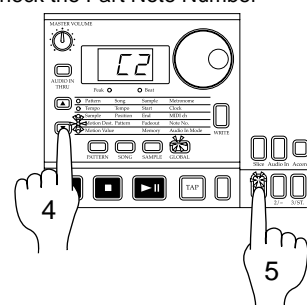
Synchronizing with an EA-1 or ER-1

By synchronizing the **ES-1** with other **ELECTRIBE** models such as the **EA-1** or **ER-1**, you can obtain an even wider range of expressive possibilities. Here we will explain how you can make the **EA-1** and **ER-1** play back in synchronization with the tempo of the **ES-1**.

Use MIDI cables to connect the MIDI OUT connector of the **ES-1** to the MIDI IN connector of the **EA-1**, and the MIDI THRU connector of the **EA-1** to the MIDI IN connector of the **ER-1**. Also connect the line out jacks of the **ES-1** and **ER-1**, and the part out jacks of the **EA-1**, to your mixer or powered monitors (speakers with built-in amp).
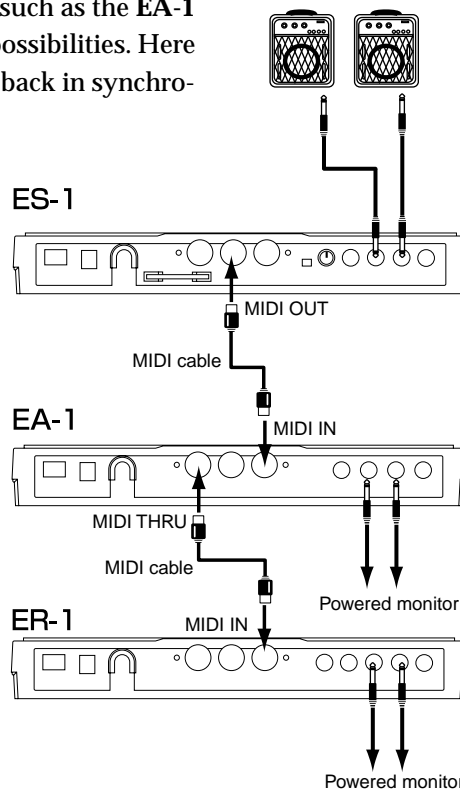
1. Press the Global mode key to enter Global mode.

2. Use the cursor keys [▲][▼] to make the parameter select LED indicate Clock.

3. Set the **ES-1** to "**Int**" and the **EA-1** and **ER-1** to "**EΞt**" (☞p.38 "Synchronizing the **ES-1** with an external MIDI device").

4. Press the Play/Pause key of the **ES-1** to start the pattern or song (the Play/Pause key will light). The **EA-1** and **ER-1** will play the pattern or song in synchronization with the tempo of the **ES-1**.
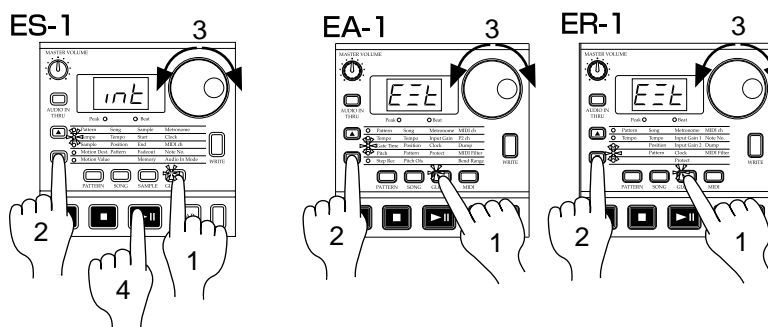
If you want the **ES-1** to play the identically-numbered pattern in synchronization, make the following settings.

- Set the **ES-1** to "**int**" (master), and the **EA-1** and **ER-1** to "**EΞt**" (slave).

- Select the same MIDI channel for the **ES-1**, **EA-1**, and **ER-1**. (For example, select "**01**" for all three.)

- On the **EA-1** and **ER-1**, set the MIDI Filter parameter "**P**" to "**O**." (☞ the EA-1 and ER-1 owner's manuals.)

- On the **ES-1**, set the MIDI Note Number parameter to **C-1—A-1** or **A#8—G9** so that no conflict occurs. (☞p.54 "MIDI note number settings for each part (Note No.)").
   *This will prevent the **EA-1** and **ER-1** from being sounded unintentionally when note-on messages are transmitted.

Another easy way to obtain synchronized playback is to connect the **ES-1** to a sequencer or synthesizer that can transmit and receive MIDI Clock messages.

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4. Sample mode

In this mode you can record a new sample, or modify or delete samples.
Press the **SAMPLE** mode key to enter sample mode.

Sample mode

Sampling area = total 95 seconds

Monaural samples 00....99.
(Slice samples displayed as 00.ıı)

Stereo samples 00.S...49.S

→ Edit in Sample mode

← Normalize, Truncate, Time Slice, Start, End, Fadeout

Write

↓

Assign to each part
Edit in Pattern mode
Pitch/Speed, Filter, Level, Pan

Recording a sample

The **ES-1** lets you connect an audio device (e.g., CD or MD) or mic and record various sounds to use as samples. A maximum of 95 seconds can be sampled and kept in internal memory.

> If the factory preloaded samples are rewritten or erased, they cannot be restored to their original state. If you do not want to lose the factory preloaded samples, purchase a SmartMedia card and perform the Save operation (☞p.55) to make a backup.

> If you run out of memory while sampling, sampling will stop automatically. Before you start sampling, use the Sample mode Memory function (☞p.32) to check the remaining amount of sampling time.

> Stereo samples occupy twice as much memory. The available time for sampling will be one half of the time displayed in Memory (☞p.32).

Connect an audio device (e.g., CD or MD) or mic to the Audio In jack. If you connect a line-level device such as a CD or MD, set the **MIC/LINE** select switch to the **LINE** position. If you connect a mic, set the switch to the **MIC** position.

For details on the sampling procedure, refer to 3. Basic operation (Quick Start), p.23 "Recording a sample."

Selecting a sample

Sample   **00.(ıı)...99.(ıı)**
                         00.S...49.S

Use the cursor keys to make the parameter select LED indicate **Sample**. Rotate the dial to select one of the 150 samples from "**00.**" (displayed as "**00.ıı**" if sliced) to "**99.**" (displayed as "**99.r**" if sliced) or from "**00.S**" to "**49.S**." Samples from "**00.**" to "**99.**" are monaural samples, and will be displayed as "**00.ıı**" if sliced. Samples from "**00.S**" to "**49.S**" are stereo samples.

> It is not possible to select a sample that has not been saved. If no samples exists in the **ES-1**'s sampling area, the display will indicate "**- -.-**"

Playing a sample

If you press the Play/Pause key or a sample part key 1—7B, the sample will be played back. A slice sample can also be played by pressing the Slice Sample part key.
In the case of a slice sample, the step keys will light to indicate steps where there is sound, and you can press these keys to play the sample sound at the corresponding location.

> Even if the sample has been sliced, it will be played as a single sample if you press a sample part key 1—7B.

Modifying a sample

The knobs and keys of the Part Edit section and Effect section can be used to modify the sound while you are in Sample mode as well. (☞p.33 "Pattern mode")

> The knobs and key on/off status in Sample mode is not saved when you perform the Write operation.

> The Roll key has no effect in Sample mode.

4. Sample mode

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Specifying the start location

Start   0...<u>3</u>145727

⚠ The highest place (underlined) will not be displayed.

Use the cursor keys to make the parameter select LED indicate **Start**. Rotate the dial to change the start location. The display will indicate the lower three places, but you can see the next higher three places by pressing the Shift key.

As you make adjustments, press the Play/Pause key to hear the difference caused by changing the actual start location.

⚠ The Start value will always be less than the End value.

Specifying the end location

End   0...<u>3</u>145727

⚠ The highest place (underlined) will not be displayed.

Use the cursor keys to make the parameter select LED indicate **End**. Rotate the dial to change the end location. The display will indicate the lower three places, but you can see the next higher three places by pressing the Shift key.

As you make adjustments, press the Play/Pause key to hear the difference caused by changing the actual end location.

⚠ End cannot be set to a value greater than the length of the sample.

Specifying the fade-out length

Fadeout   0...<u>3</u>145728

⚠ The highest place (underlined) will not be displayed.

Use the cursor keys to make the parameter select LED indicate **Fadeout**. Rotate the dial to change the fade-out location. The display will indicate the lower three places, but you can see the next higher three places by pressing the Shift key.

As you make adjustments, press the Play/Pause key to hear the difference caused by changing the actual fade-out location.

The sample may sound slightly different each time it is played.
• The fade-out start location may drift during playback.
• The playback start location may drift during reverse playback. In particular, the sample may not play if the distance between the start and end is 40 or less.

Directly sampling the sound of the ES-1 (Resampling)

The sound being played back by the **ES-1** can be sampled directly. This is called "resampling." By resampling, you can create a sample that combines multiple samples, or use the sound of effects applied to an existing sample as a new sample.

⚠ If you have modified the Start, End, or Fade-out values in Sample mode, or have executed Normalize, Truncate, or Time Slice, you will not be able to Resample in Pattern mode until you write the sample or select another sample to discard the changes.

⚠ A newly sampled sample is displayed as "- -." (or "- -.S" for a stereo) in Sample mode.

⚠ If you sample again without saving the sample, the previous sample data will be lost.

⚠ A sample cannot be used in Pattern mode unless it has been saved.

⚠ It is not possible to record a motion sequence and a sample at the same time.

Resampling from the beginning of a pattern or song

1. Make sure that you are in Pattern mode or Song mode.

2. Press the Stop/Cancel key to stop playback.

3. Hold down the Pattern Set key and press the Rec key to enter sampling-ready mode (the Rec key will light, and the Pattern Set key and Play/Pause key will blink). The display will blink to indicate the sampling method (monaural/stereo).

4. Rotate the dial to select monaural ("ⁿno") or stereo ("**StE**").

5. When you press the Play/Pause key, the pattern or song will begin playing, and at the same time sampling will begin. (The Pattern Set key and the Play/Pause key will light.)

6. When you press the Stop/Cancel key, the pattern or song playback will stop, and sampling will also stop. (The Pattern Set key, Rec key, and Play/Pause key will go dark.)
Alternatively if you press the Rec key without pressing the Stop/Cancel key, sampling will stop but playback will continue. (The Pattern Set key and Rec key will go dark, and the Play/Pause key will be lit.)

To cancel sampling-ready mode, press the Stop/Cancel key.

✎ When you turn on the power (i.e., in the default state), sampling will be monaural.

✎ If you press the Play/Pause key during resampling, sampling will continue but the pattern or song playback will be paused.

Resampling from the middle of a pattern or song

1. Make sure that you are in Pattern mode or Song mode.

2. Press the Stop/Cancel key to stop playback.

3. Press the Play/Pause key to begin playback of the pattern or song. (The Play/Pause key will light.)

4. At the instant that you wish to begin sampling, press the Rec key while holding down the Pattern Set key. (The Pattern Set key, Rec key, and the Play/Pause key will light.)

5. If you press the Stop/Cancel key, sampling will stop. (The Pattern Set key, Rec key, and Play/Pause key will go dark.) Alternatively if you press the Rec key without pressing the Stop/Cancel key, sampling will stop but playback will continue. (The Pattern Set key and Rec key will go dark, and the Play/Pause key will be lit.)
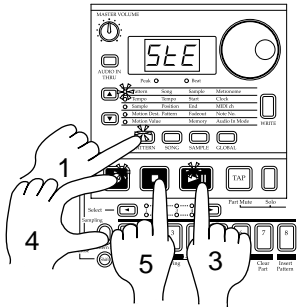
✎ The sampling method (monaural/stereo) will be as specified by the setting described earlier in "Resampling from the beginning of a pattern or song."

✎ If you press the Play/Pause key during resampling, sampling will continue but the pattern or song playback will be paused.

Resampling just one note of a part

1. Make sure that you are in Pattern mode, Song mode, or Sample mode.

2. Press the Stop/Cancel key to stop playback.

3. Hold down the Pattern Set key and press the Rec key to enter sampling-ready mode. (The Rec key will light, and the Pattern Set key and Play/Pause key will blink). The display will blink to indicate the sampling method (monaural/stereo).

4. Rotate the dial to select monaural ("mno") or stereo ("**StE**").

5. Press the key for the part that you wish to sample. The part you pressed will sound, and at the same time, sampling will begin. (The Pattern Set key, Rec key, and Play/Pause key will light.)

6. Press the Stop/Cancel key when you want to stop sampling. (The Pattern Set key, Rec key, and Play/Pause key will go dark.)

If you wish to cancel sampling-ready mode, press the Stop/Cancel key before you start sampling.

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Slice

Slice is a function that can be used to cut up a phrase into smaller elements so you can:

• change the tempo of its playback without affecting pitch

• change the rhythm pattern by turning on and off different sliced samples

• affect each sample (using a motion sequence) to change its pitch, forward/backward playback, effect on/off and filter setting for new, creative possibilities

Slice works best on samples that have a clearly defined attack, such as rhythm phrases, to divide them into separate notes. For example if you had a rhythm phrase containing kick, snare drum, and hi-hat, you could detect the attack of each element, and slice the phrase into individual notes. Once this is done, you are able to deal with each step key to which a sliced sample is assigned individually, giving you amazing new control over the playback of the phrase.

A sample that has been divided in this way is called a Slice sample.

A slice sample can be used only by the Slice Sample part. Unlike sample parts 1—7B, individual notes are assigned to each step in Pattern mode. If a note does not exist, there will be no sound.

If you select a slice sample in Sample mode, step keys at which a note exists will light to indicate the way in which the slice sample has been divided.

You can also press a step key that is lit to hear the sound.

The slice sample will be divided into either 1, 2, 4, 8, 16, 32, 48, or 64 steps. Each step is a 16th note, and the scale will be calculated automatically from the sample length and the BPM. The assigned step locations will depend on this.

Scale/Beat	Steps to which notes are assigned															
Slice sample	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
16 (♪ ×16)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
32 (♪ ×16)	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31
tri (♪₃ ×12)	1	3	4	6	7	9	10	12	13	15	16	18	19	21	22	24
tr2 (♪₃ ×12)	1	3	4	6	7	9	10	12	13	15	16	18	19	21	22	24

If a slice sample is shorter than the length, it will be assigned repeatedly. If it is longer, the excess steps will be ignored.

Creating a slice sample (Time Slice)

⚠ It is not possible to slice a stereo sample.

1. Use the dial to select a monaural sample that you wish to slice.

2. Hold down the Shift key, and press step key 13 (**Time Slice**). (Key 13 will light, and the Slice sample part key will blink.)

3. If you press the Slice sample part key, the tempo of the sample will automatically be calculated and shown in the display, and the sample will be played repeatedly in time with the tempo. If the Global mode Metronome setting is on, the metronome sound will also play.

4. Use the dial to adjust the tempo. You can also use Tap Tempo to adjust the tempo. Make adjustments so that the transitions occur in a natural-sounding way.

⚠ The pitch and tempo of the playing sample will not change.

5. Press the Slice sample part key once again. Playback will stop, and the step keys at each note interval will light. The display will indicate the sensitivity at which slices will be detected. If you press a step key that is lit, you will hear the sound.

6. If you use the dial to change the sensitivity, the sample will be divided in a different way. The resolution value is within **0r—9r, 0—9**. Lower values will result in a greater sensitivity, allowing finer slices to be detected. When you choose a resolution value number which includes the letter "**r**", each slice will have an extended release "tail" to help sliced patterns play better at slower tempos.

⚠ When you change the sensitivity, a certain amount of time may be required for the sample to be re-divided.

⚠ Depending on the volume or type of the sample, there may be cases in which changing the sensitivity will not change how the sample is divided.

7. Press the Slice sample part key once again to complete the Slice procedure. (The Slice sample part key will go dark.)

If you decide to cancel mid-way through the procedure, press the Stop/Cancel key.

A slice sample is indicated by a "ıı" after the sample number.

⚠ Time Slice cannot be used on a sample that has not been saved, or on a sample that has not been saved after executing Truncate.

⚠ If you use a slice sample on sample parts 1—7B, it will be handled as a conventional sample.

⚠ A slice sample cannot be used in Pattern mode unless it is saved (☞p.32).

Tips for achieving good results with Time Slice

• While it is best to first try to set a BPM that results in the smoothest playback of the sampled phrase, this may not always result in the best Slice playback. In fact, it may be necessary to try different BPM values (including fractional BPM settings) within a +/- 3 BPM range. This means that if you have a sampled phrase that you know should playback at 120 BPM, when you make this setting and execute Slice, the playback of your new Slice sample phrase possibly may not be perfect when placed into a Pattern.

If this is the case it is likely that there would be an irregular rhythm introduced. So to correct this you should delete the newly sliced sample and try again setting the BPM to 119, or 118.5, or even 121. Trying a few settings like this will help you to find the BPM setting which produces the best slicing.

• Even before you finish executing the Slice command you can tell if a phrase is going to come out OK. After choosing a BPM setting and pressing the Slice sample part key, the step keys will light at certain note intervals based on the current sensitivity setting. Now you can audition each lit step key to hear how the slice is going to turn out. You should check the timing of critical step keys, like step key 5 (beat 2), step key 9 (beat 3) etc. to hear if the sample timing is lining up with critical downbeats in your phrase. If they're sounding strange you should press the Stop/Cancel key right away and start the procedure again, this time using a different BPM setting until you hear these critical step keys/beats matching up better.

• When a phrase is cut into individual samples, each sample is given a small loop at the end to keep the sample from ending too abruptly. If the tonality of this short loop is not to your liking try changing the sensitivity to a higher number. This will result in less slices, so each slice will be longer and you won't notice these loops as much. Note that this may not allow you to vary the tempo of your phrase as much, but each step will likely sound more natural.

• Phrases with swung, or irregular rhythms (including many hip-hop and jazz rhythms) are the most difficult to get the sliced timing right on. In these types of phrases you will need to try a combination of different BPM settings and slice sensitivity. Finally, setting the Pattern Swing parameter to a higher value will help to re-introduce the correct feel back into your playback. Experimenting with combinations of these ideas will yield the best results.

• If a newly sliced phrase has some space between the step, you will find that after you run it through an effect (or two), and change the tempo that this small gap is covered up, or even adds a cool and unique quality to your music. So don't just listen back to the pure phrase and make a final judgement – play around with it, add some other parts, and listen to how it works in context with your music. You may very well like the new quality that was introduced during the slicing!

So with a little experimentation you will find the best results, and remember that this is a new creative tool – you want to do more than simply cut your phrase up, you want to use all the parameters to create you own unique sound from the original source. Enjoy!

Other functions for editing a sample

✍ If you wish to save a sample that was edited using these functions, you must perform the Write operation before you move to another sample or turn off the power. (☞p.32 "Saving a sample (WRITE)")

Normalize

This function boosts the level of the sample as far as possible without causing it to become distorted.

1. Use the dial to select the sample that you wish to normalize.

2. Hold down the Shift key and press step key 11 (**Normalize**). (Key 11 will blink.)

3. Press step key 11 once again to execute the Normalize operation. (Key 11 will go dark.)

If you decide to cancel without executing, press the Stop/Cancel key.

Maximum level
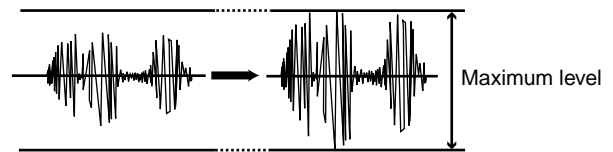
Truncate

This function deletes the portions of the sample that are earlier than **Start** and later than **End**.

1. Use the dial to select the sample that you wish to Truncate.

2. Hold down the Shift key and press step key 12 (**Truncate**). (Key 12 will blink.)

3. Press step key 12 once again to execute the Truncate operation. (Key 12 will go dark.)

If you decide to cancel without executing, press the Stop/Cancel key.

✍ After the Truncate function has been executed, the Start value will be 0 and the End value will be the length of the sample.

✍ After Truncate is executed, the sample cannot be deleted (section below) until you save the sample or select another sample.

End

Start

before Truncate

after Truncate

0

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Deleting a sample (Delete Sample)

This function completely deletes a sample from memory.

1. Use the dial to select the sample that you wish to Delete.

2. Hold down the Shift key and press step key 14 (**Delete Sample**). (Key 14 will blink.)

3. Press step key 14 once again to delete the sample. (Key 14 will go dark.)

If you decide to cancel without deleting, press the Stop/Cancel key.

⚠ Once a sample has been deleted, it cannot be recovered.

Checking the remaining amount of sampling area (Memory)

Use the cursor keys to make the parameter select LED indicate **Memory**.
The display will indicate the remaining number of seconds of sampling time.

⚠ It is not possible to edit the Memory parameter.

⚠ Since stereo sampling uses twice as much memory, the available amount of sampling time will be half the amount that is displayed.

Saving a sample (WRITE)

After you record or modify a sample, you must perform the Write operation if you wish to keep the data. If you wish to intentionally discard the changes you have made to a sample and revert to the original data, simply change samples without saving.

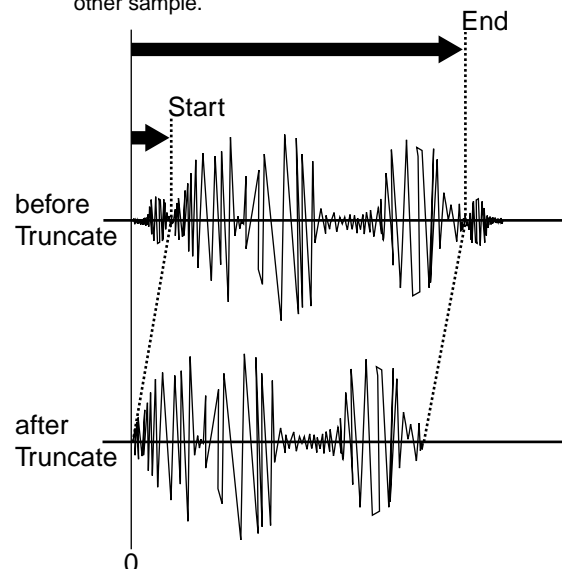1. Press the Write key (the key will blink). The sample number will blink in the display. In the case of a newly recorded sample, the display will blink "**- -.**" (or "**- -.S**" for a stereo sample).

2. Use the dial to select the writing destination sample number. In the case of a monaural sample (including slice samples), you can choose from "**00.**" through "**99.**" In the case of a stereo sample, you can choose from "**00.S**" through "**49.S**". When you choose the unused sample number, a period is indicated on the lower right side of display.

3. Press the Write key once again, and the display will indicate that the data is being saved. When saving is complete, the display will change to the save destination number and the Write key will go dark.

If you decide to cancel without writing, press the Stop/Cancel key.

⚠ With the factory settings, Memory Protect is turned on so that data cannot be saved. You must turn off Memory Protect before you execute the Write operation. (☞p.56 "Memory Protect (Protect)")

⚠ When you execute the Write operation, the sample that had occupied the save destination will be overwritten.

⚠ The data locations within internal memory are optimized when you write a sample, and this may take a certain amount of time (maximum of approximately 90 seconds). During this time, the display will show that the data is currently being saved.

⚠ The animation is indicated on the display during writing the sample. Never turn off the power until the data has been completely saved (i.e., until the Write key goes dark).

⚠ There is no need to write a sliced sample to a different location. The same location can play back the original sample (if assigned to part 1—7B) or the sliced sample (if assigned to slice part).

5. Pattern mode

In this mode you can play patterns, or edit them to make new patterns. Press the **PATTERN** mode key to enter Pattern mode.

Pattern (A01) \ 128 patterns A01...b64

Parts	Rhythm patterns (maximum 64 steps)
Sample 1 (stereo/mono) (6 parameters, Motion Seq., FX On/Off)	
Sample 2 (mono only) (6 parameters, Motion Seq., FX On/Off)	
Sample 3 (stereo/mono) (6 parameters, Motion Seq., FX On/Off)	
Sample 4 (mono only) (6 parameters, Motion Seq., FX On/Off)	
Sample 5 (mono only) (6 parameters, Motion Seq., FX On/Off)	
Sample 6A (mono only) (6 parameters, Motion Seq., FX On/Off)	
Sample 6B (mono only) (6 parameters, Motion Seq., FX On/Off)	
Sample 7A (mono only) (6 parameters, Motion Seq., FX On/Off)	
Sample 7B (mono only) (6 parameters, Motion Seq., FX On/Off)	
Slice (mono only) (6 parameters, Motion Seq., FX On/Off)	
Audio In (5 parameters, Motion Seq., FX On/Off)	
Accent (Level)	

Selecting a pattern

Pattern   A01...b64

Use the cursor keys to make the parameter select LEDs indicate **Pattern**.

Rotate the dial to select one of the 128 patterns: **A01**...**A64**, **b01**...**b64**.

Setting the playback tempo

Tempo   20.0...300.0

• Using the dial to change the tempo

Use the cursor keys to make the parameter select LEDs indicate **Tempo**. Rotate the dial to modify the tempo.

If you wish to change the tempo units below the decimal place, hold down the Shift key and rotate the dial.

• Using the Tap Tempo key to change the tempo

While the pattern is playing, press the Tap key three times or more at the desired tempo. The **ES-1** will calculate the interval at which you pressed the Tap key, and will change the tempo accordingly. You can change the tempo in the same way even when playback is stopped.

When you use the cursor keys to make the parameter select LEDs indicate **Tempo**, and the tempo you modified will appear in the display.

> If you switch to a different pattern without writing the pattern whose tempo you modified, the pattern tempo will return to the previous value. If you wish to keep the modified tempo, you must perform the Write operation (☞p.32 "Saving a pattern").

> If you press and hold the Tap key, the Part Mute function (checking the Part Mute status) will be selected, and the **ES-1** will stop detecting the interval at which Tap tempo was pressed.

Playing a pattern (Pattern Play)

Use the cursor keys to make the parameter select LEDs indicate **Pattern**. Press the Play/Pause key to start pattern playback. When the pattern finishes playing, it will return to the beginning and continue playing.

While listening to a pattern, you can strike the part keys along with the rhythm, or move the knobs to modify the sound. By taking advantage of the various functions of Pattern mode as part of your performance technique, you can enjoy even wider possibilities.

The timing at which patterns will change

If you switch patterns during playback, the change will occur when the currently playing pattern finishes its last step. Until the pattern actually changes, the pattern number selected in the display will blink.

Pattern A01	Pattern A21
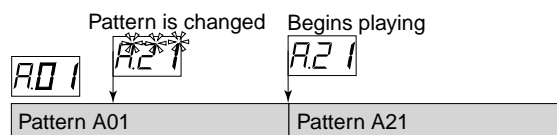
Playing from the beginning of a pattern (Reset & Play)

If you hold down the Shift key when pressing the Play/Pause key, the playback will be forced to playback from the beginning. By using this function in conjunction with setting the tempo by the Tap key, you can synchronize the playback without using MIDI.

> In order to ensure that the rhythm always matches, you will need to perform this adjustment each time.
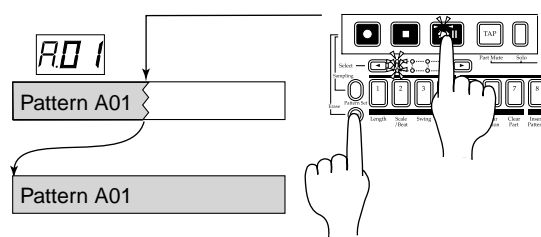
About the tempo when the pattern is changed

If you switch patterns during playback, the tempo of the previous pattern will always be maintained. If you wish to use the tempo that is stored in the newly selected pattern, press the Stop/Cancel key to stop playback, and then start playback once again. The pattern's own tempo will be applied from the point at which the pattern was stopped.

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Selecting parts

The **ES-1** has twelve parts, as follows.

- Nine sample parts to which a sample can be assigned
- A slice sample part to which a slice sample (which can independently handle separate notes in a phrase) can be assigned
- An audio in part that allows gating of the audio signal input from the AUDIO IN jack
- An accent part containing dynamics data for each step

When you press a part key, its sound will be heard, and simultaneously that part will be selected. During playback, you can hold down the Shift key and press a part key to select that part without sounding it.

When a part is selected, its part key will light, and the step keys will show the rhythm pattern of that part. The controls of the Synthesizer section will be enabled for that part.

During playback, each part key will light at the timing with which it sounds, making it easy for you to determine which sounds are playing. The step keys will continue to show the rhythm pattern of that part, and will also indicate the rhythm location.

✏️ When you sound a part by pressing its part key, it will sound at the volume of when Accent is On.

The Part Mute function

By holding down the Part Mute key (Tap key) while you press a part key, you can mute (temporarily silence) that part.

While you hold down the Part Mute key (Tap key), the mute status of each part will be displayed. The part key of unmuted parts will light, and muted part keys will be dark.

You can also mute two or more parts. To cancel part muting, press the corresponding part key.

Display when no parts are muted

Mute Slice sample part and Sample part 5

Display when Slice sample part and Sample part 5 are muted
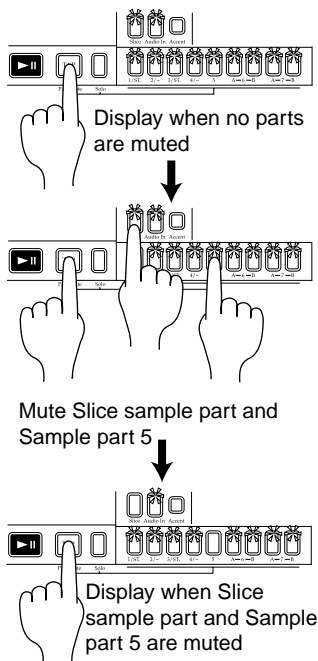
✏️ When you hold down the Part Mute key (Tap key) to select the Mute function, pressing a part key will not sound that part.

The Part Solo function

By pressing the Solo key (the key will light) and pressing a part key, you can hear only that part.

To solo two or more parts, hold down the Solo key and select the desired parts. While the Solo key is lit, you can hold down the Solo key (or Mute key) and press other part keys to add more solo parts. If you press and then release the Solo key, the Solo function will be canceled (the key will go dark).

Display when no parts are soloed

Solo one part   Solo more than one part

Select Slice sample part

Select Sample parts 1 and 4

Display when Slice sample part is soloed

Display when sample parts 1 and 4 are soloed

Add Sample part 6A to the soloed parts Sample 1 and 4
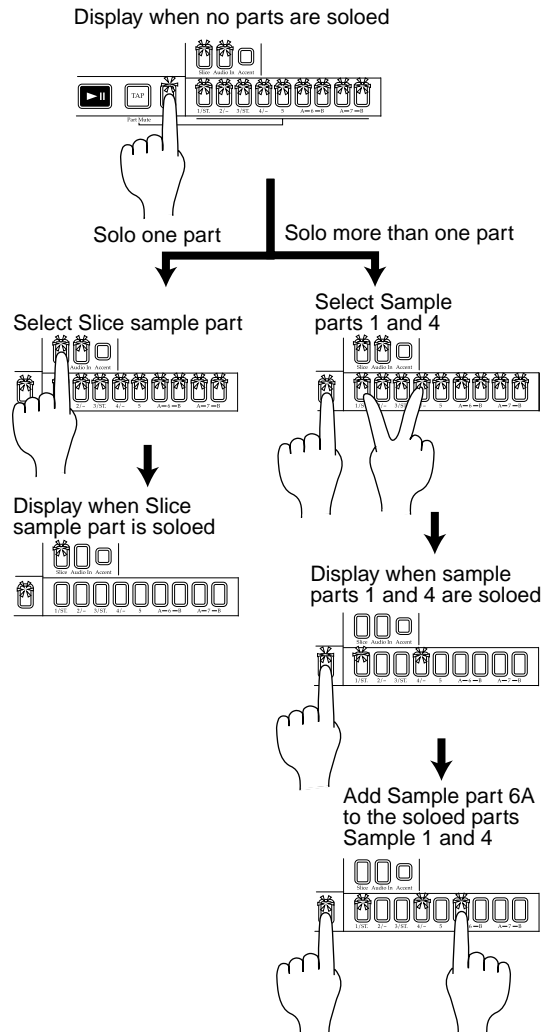
✏️ If you press the Solo key, the Part Mute settings you made will be canceled (i.e., no parts will be muted).

Creating a pattern

There are two ways to create a pattern. You can start with a pattern that is similar to the desired result and then edit it, or you can create a pattern from scratch by specifying the sound and rhythm pattern for each part. Either way, the **ES-1** makes it easy for you to create your own original rhythm patterns.

> If you wish to save a pattern you create, you must perform the Write operation before you select a different pattern or turn off the power.

Assigning a sample

Sample   off, 00. (00.ıı) ... 99. (99.ıı) 00.S...49.S

The **ES-1** has 150 sampling areas to hold the samples you record (100 monaural, 50 stereo). Samples you create can be freely assigned to the parts of each pattern.

> It is not possible to make sample settings for the audio in part or the accent part. (The display will indicate "**- - -**".)

1. Use the cursor keys to make the parameter select LED indicate **Sample**.

2. Press the part key to which you wish to assign the sample (the key will light). At this time, the number of the sample assigned to that key will appear in the display, and the sample will be played.

3. Rotate the dial to select a sample. At this time if you press the part key that was selected in step 2, the selected sample number will be played, and the assignment will be completed.

If you do not want to assign any sample, select "**oFF.**"
Only slice samples (00.ıı...99.ıı) can be selected for the slice sample part.

> Stereo samples can be assigned only to sample parts 1 or 3.

> If a stereo sample is assigned to sample part 1 or 3, sample part 2 or 4 will not sound. In this case, the sample number will blink if you select sample part 2 or 4.

> If you use a slice sample in sample parts 1—7B, it will be handled as an ordinary sample.

> If the assigned sample has been deleted (☞p.32), the sample number will blink.

> A sliced sample that has been Normalized or Truncated cannot be used in a slice part. In this case, the sample number will blink.

Editing the sound of a part

Select a pattern that is close to what you have in mind (or a pattern which contains no sound or rhythm). Strike the part keys to hear each sound, and use the knobs and keys to edit the sounds. At this time, the **Original Value LED** will light when the knob etc. that you are currently moving reaches the same value as the original sound of the pattern.

You can also edit while playing back a pattern. It is also possible to use an external MIDI device to control the value of each knob (☞p.57 "About MIDI").

The parameters that are valid for each part are shown in the following diagram.

1...5, 6A, 6B, 6A, 6B	
	Sample part × 9
Slice	
	Slice Sample part

Audio In part

Accent part
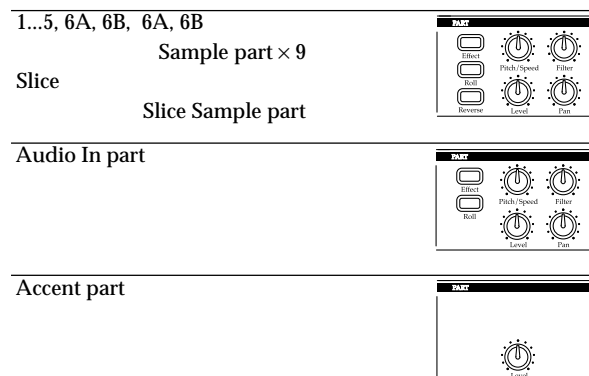
> If the sound does not change when you rotate a knob or switch the setting of a key, either that knob or key is not valid for that part, or the Motion Sequence function (☞p.41 "Motion Sequence") is operating.

> The Audio In parts are valid only when a signal is being input to the audio input jacks.
> Although sample parts 6A and 6B, and 7A and 7B can be edited independently, they cannot be played simultaneously. If triggers for both exist at the same step, the 6B or 7B part will sound.

Effect

This turns the effect **on** (lit) or **off** (dark) for each part.

Roll

This turns the Roll (successive strike) effect **on** (lit) or **off** (dark) for each part. The roll interval is determined by the tempo of the pattern and by the roll type (☞p.40 "Setting the roll type"). If you press and hold a part key when Roll is on, roll playback will continue as long as you continue holding the part key.
Roll playback of the Slice Sample part is not possible when pattern playback is stopped.

Reverse

This turns Reverse Playback of the sample **on** (lit) or **off** (dark). This has no effect for the Audio In part.

5. Pattern mode

Pitch/Speed   −64...63

This specifies the playback pitch of the sample. Raising the pitch will speed up the playback, and lowering it will slow down the playback. The pitch can be adjusted over a range of +/−2 octaves, and will change in the following way.

Knob value	Pitch	Example pitches (C3 input)
63	2 octaves	C5
41, 43...59, 61	◊	C♯4, D4...A♯4, B4
39	1 octave	C4
9, 12...33, 36	◊	D3, D♯3...A♯3, B3
6	semitone up	C♯3
0 (center)	0	C3
−7	semitone down	B2
−10, −13...−37	◊	A♯2, A2...C♯2
−40	−1 octave	C2
−42, −44...−62	◊	B1, A♯1...C♯1
−64	−2 octaves	C1

For the Audio In part, this will function as a gate time (duration of the sound) synchronized to the tempo.

Filter   0...127

Adjusts the cutoff frequency of the low pass filter. Rotating this toward the left will cut the overtones that are higher than the cutoff frequency, producing a milder tone.

Pan   L64...R63

Adjusts the stereo position (panpot) of the sound. When the knob is located at the center, the sound is panned to the center. Rotating the knob toward the left will move the sound toward the left, and rotating it toward the right will move the sound toward the right.

Level   0...127

Adjusts the output level. Rotating the knob toward the right will increase the level.
For the Accent part, this adjusts the accent level (the degree to which the volume is emphasized when the accent is on). (☞p.40 "Adding accents to the rhythm pattern")

Motion Seq (motion sequence)

This records and plays back knob movements. Each time you press this key, it will alternate between on (**Smooth** lit), on (**Trig Hold** lit), and off (dark). (☞p.41 "Playing motion sequences")

Editing effect and delay

EFFECT

On the **ES-1**, you can select and use one of eleven types of effect for each pattern. The effect can be turned on/off for each part by using the Effect key in the Part Edit section. Use the two knobs (**Edit 1**, **Edit 2**) to adjust the parameters, which will differ depending on the selected type of effect.

Although the effect can be turned on/off independently for each part, the type and parameter values cannot be changed independently.

Motion Seq (motion sequence)

This is the motion sequence for the effect (☞p.41 "Motion sequence"). Each time you press the key, this will alternate between on (lit) and off (dark).

Effect types and parameters

Reverb

This simulates the reverberation and acoustics of a plate reverb unit.

Edit 1 _ Time   0...127
The reverb time will lengthen as the knob is rotated toward the right.

Edit 2 _ Level   0...127
The level of the reverberation will increase as the knob is rotated toward the right.

Flg./Cho. (flanger/chorus)

Flanger and chorus are effects that modulate the pitch of a slightly time-delayed copy of the sound and add it to the original sound to create a sense of spaciousness, modulation, and vibrato.

Edit 1 _ LFO Rate   0...127
Adjusts the LFO speed of the flanger/chorus.
The LFO speed will become faster as the knob is rotated toward the right.

Edit 2 _ Depth   0...127
Adjusts the depth of the flanger/chorus effect. The effect will change from chorus to flanger as the knob is rotated toward the right.

Raising the depth excessively may cause the sound to distort.

Phaser

This effect adds modulation to the sound by mixing a cyclically phase-shifted sound with the original sound.

Edit 1 _ LFO Rate   0...127
Adjusts the LFO speed of the phaser. The LFO speed will become faster as the knob is rotated toward the right.

Edit 2 _ Depth   0...127
Adjusts the depth of the phaser. The modulation will become greater as the knob is rotated toward the right.

Ring Mod. (ring modulation)

This effect applies modulation to the sound in order to create metallic resonances or unusual sound effects.

Edit 1 _ Frequency   **0...127**

Specifies the frequency of the modulation that will be applied. The frequency will rise as the knob is rotated toward the right.

Edit 2 _ Balance   **0...127**

Specifies the balance of the effect sound and direct sound. As the knob is rotated toward the right, the effect sound will increase and the direct sound will decrease.

Pitch Shifter

This effect shifts the pitch.

Edit 1 _ Pitch   **0...127**

Specifies the amount of pitch shift. When the knob is in the center position, the output pitch will be the same as the input pitch. As the knob is rotated toward the left the pitch will become lower, and as the knob is rotated toward the right the pitch will become higher. The available range of pitch shift is +/-2 octaves, and will change as shown below.

Knob value	Pitch	Example pitch (input note C3)
127	2 octaves	C5
105, 107...125	◊	C♯4, D4...B4
103	1 octave	C4
73, 76...97, 100	◊	D3, D♯3...A♯3, B3
70	semitone up	C♯3
64 (center)	0	C3
57	semitone down	B2
27, 30...51, 54	◊	C♯2, D2...A2, A♯2
24	−1 octave	C2
2, 4...20, 22	◊	C♯1, D1...A♯1, B1
0	−2 octaves	C1

Edit 2 _ Dry level   **0...127**

This adds the original sound to the pitch-shifted sound. As the knob is rotated toward the right, increasing amounts of the original sound will be added to the effect sound.

Compressor

A compressor boosts low level sounds and reduces high level sounds in order to minimize differences in volume and make the sound more consistent.

Edit 1 _ Sensitivity   **0...127**

Specifies the sensitivity of the compressor. When the knob is in the far left position, there will be no effect. As the knob is rotated toward the right, the effect will apply more strongly.

Edit 2 _ Attack   **0...127**

Specifies the attack speed until the compressor begins to take effect. The attack will become slower as the knob is rotated toward the right.

Distortion

By boosting the volume appropriately, this effect causes the sound to distort and produces a rich overtone structure.

Edit 1 _ Gain   **0...127**

Specifies the degree of distortion. The sound will be distorted more greatly as the knob is rotated toward the right.

Edit 2 _ Level   **0...127**

Adjusts the output level. The output level will increase as the knob is rotated toward the right.

Decimator

This effect lowers the sampling frequency and the number of sampling bits, producing a grainy sound characteristic of cheap samplers.

Edit 1 _ Sampling frequency   **0...127**

Rotating the knob toward the right produces a more lo-fi sound, and rotating it toward the left produces a more hi-fi sound.

Edit 2 _ Number of sampling bits   **0...127**

Rotating the knob toward the right will produce a sound typical of fewer bits (lo-fi), and rotating it toward the left will produce a sound typical of more bits (hi-fi).

> If the input volume is extremely low, there may be no output. If there is a high noise level during silent times, noise may be generated.

Isolator

This effect cuts the sound of a specific frequency. You can use this to cut just the vocal range, or just the bass range, etc. Edit 2 (Mid Control) will take priority.

Edit 1 _ Low / High Control   **0...127**

This controls the low or high range. Rotating the knob toward the left will cut the high range, and rotating it toward the right will cut the low range.

Edit 2 _ Mid control   **0...127**

This controls the mid range. Rotating the knob toward the left will cut the mid range, and rotating it toward the right will retain only the mid range.

Reso. Filt. (resonance filter)

This is a low pass filter with resonance. It cuts the overtones that are above the cutoff frequency, producing a milder tone.

Edit 1 _ Cutoff Frequency   **0...127**

Adjusts the cutoff frequency of the low pass filter. The cutoff frequency will rise as the knob is rotated toward the right.

Edit 2 _ Resonance   **0...127**

This emphasizes the sound in the region of the cutoff frequency, adding a distinctive character to the sound.

> Depending on the cutoff frequency or input sound, high resonance settings may cause the sound to distort.

Wah

This is a wah that uses an LFO to control the cutoff frequency.

Edit 1 _ LFO Rate   **0...127**

Adjusts the speed of the LFO that controls the cutoff frequency. Rotating the knob toward the right will increase the LFO speed.

Edit 2 _ Cutoff Frequency   **0...127**

Adjusts the cutoff frequency. Rotating the knob toward the right will raise the cutoff frequency.

5. Pattern mode

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DELAY

Delay is an effect that adds one or more delayed "echoes" to the sound. The delay effect of the **ES**-**1** is a "cross-feedback delay." This feeds the delayed L and R signal back into the opposite side to produce a greater feeling of spaciousness from left to right.

You can record delay knob movements as a Motion Sequence, or use the effect as a Tempo Delay.

The delay effect will apply to the entire rhythm pattern, and it is not possible to change the effect independently for each part.

Motion Seq (motion sequence)

This is the delay motion sequence (☞p.41 "Motion Sequence"). Each time you press the key, the setting will alternate between **on** (lit) and **off** (dark).

BPM Sync

This allows the delay time to be automatically synchronized to the tempo of the pattern. Each time you press the key, the setting will alternate between **on** (lit) and **off** (dark). When the MIDI Clock setting is **Ext**, the delay time can also be synchronized to the clock of an external device (☞p.53 "Synchronizing the **ES**-**1** and an external MIDI device (MIDI Clock)")

Depth   0...127

Adjusts the level of the delay sound and the amount of feedback (the number of delay repeats).
Rotating the knob toward the right will increase the level of the delay sound, and will also increase the amount of feedback.
The further left or right the Pan of each part is set, the more the sound will be spread to left and right.

Raising the Depth excessively may cause the sound to distort (clip).

Time (delay time)   5 msec ... 2 sec
                                        (for BPM Sync) 1/4...8

Specifies the delay time. Rotating the knob toward the right will lengthen the delay time. Rotating the knob toward the left to shorten the delay time will produce a "doubling" effect (an impression as though multiple instruments are playing in unison).
When **BPM Sync** is "**on**", this parameter will let you set the tempo in terms of sixteen different multiples of the tempo: 1/4, 1/3, 1/2, 2/3, 3/4, 1, 1.33, 1.5, 2, 2.5, 3, 4, 5, 6, 7, or **8**.

If you change the delay time during playback, the pitch of the delayed sound will change.

Depending on the tempo setting, it may be impossible to set the delay time. In such cases, set the delay time to half the desired value.

If the Time value is lowered excessively, the sound may distort (clip).

Length, Scale/Beat settings

You can set the length (the length of the entire pattern) and the basic beat (time signature).
The Length and Scale/Beat you specify here will affect the correspondence between step keys and note values, and the maximum number of steps as shown in the following diagram.
If Scale/Beat is set to "**tri**" ($\flat_3$ x 12) or "**tr2**" ($\flat_3$ x 12), step keys 13--16 will have no effect.
While the Shift key is held down, the upper line of select LEDs (green) will indicate the length of the current pattern, and the lower line of select LEDs (red) will indicate the beat.

Length	Maximum number of steps	
	16 ($\flat \times 16$) or **32** ($\flat \times 16$)	**tri** ($\flat_3 \times 12$) or **tr2** ($\flat_3 \times 12$)
1 Select LED 1 (green) lit	16	12
2 Select LEDs 1, 2 (green) lit	32	24
3 Select LEDs 1 to 3 (green) lit	48	36
4 Select LEDs 1 to 4 (green) lit	64	48

Scale/Beat	Correspondence between step keys and note values
16 ($\flat \times 16$) Select LED 1 (red) lit	
32 ($\flat \times 16$) Select LED 2 (red) lit	
tri ($\flat_3 \times 12$) Select LED 3 (red) lit	
tr2 ($\flat_3 \times 12$) Select LED 4 (red) lit	

It is not possible to view or change the Length or Beat/Scale during playback or recording, or during Pattern Set Play.

Setting the Length

1, 2, 3, 4

1. If a pattern is playing, press the Stop/Cancel key to stop playback.

2. Use the dial to select the pattern whose length you wish to set.

3. Hold down the Shift key and press step key 1 (**Length**). (Key 1 will blink.)

4. The value will blink in the display. Use the dial to specify the length.

5. Press step key 1 once again to finalize the value. (Key 1 will go dark.)

If you wish to cancel without changing the setting, press the Stop/Cancel key.

Setting the Scale/Beat

16, 32, tri, tr2

1. If a pattern is playing, press the Stop/Cancel key to stop playback.

2. Use the dial to select the pattern whose scale/beat you wish to set.

3. Hold down the Shift key and press step key 2 (**Scale/Beat**). (Key 2 will blink.)

4. The value will blink in the display. Use the dial to specify the scale/beat.

5. Press step key 2 once again to finalize the value. (Key 2 will go dark.)

If you wish to cancel without changing the setting, press the Stop/Cancel key.

Swing settings

By adjusting the Swing settings you can offset the note timing of the steps. For example, you can change a straight 16-beat by adding a slight "bounce" or shuffle. The Swing value can be adjusted from **50** to **75** (%), and will affect the note timing of even-numbered steps. A setting of **50** will produce a perfect 16-beat, and a setting of **66** will produce a shuffle.

1. If a pattern is playing back, press the Stop/Cancel key to stop playback.

2. Rotate the dial to select the pattern for which you wish to make Swing settings.

3. Hold down the Shift key, and press step key 3 (**Swing**). (Key 3 will blink.)

4. A value will blink in the display. Rotate the dial to set the Swing value.

5. Once again press step key 3 to execute the Swing setting (key 3 will go dark).

If you decide to cancel without making the setting, press the Stop/Cancel key.

The Swing setting has no effect if Length or Scale/Beat is set to "**tri**" ($\flat_3$ x 12) or "**tr2**" ($\flat_3$ x 12).
It is not possible to view or adjust the Swing parameter during playback or recording, or during Pattern Set Play.
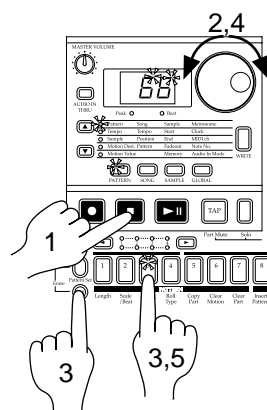
Setting the Roll Type

2, 3, 4

If you specify the Roll Type, the part steps for which Roll is "**on**" will be subdivided. You can select a subdivision of either **2**, **3**, or **4**.

1. If a pattern is playing, press the Stop/Cancel key to stop playback.

2. Use the dial to select the pattern whose roll type you wish to set.

3. Hold down the Shift key and press step key 4 (**Roll Type**). (Key 4 will blink.)

4. The value will blink in the display. Use the dial to specify the number of subdivisions for the roll type.

5. Press step key 4 once again to finalize the value. (Key 4 will go dark.)

If you wish to cancel without changing the setting, press the Stop/Cancel key.

It is not possible to change the Roll Type during playback, recording, or sampling, nor during Pattern Set Play.
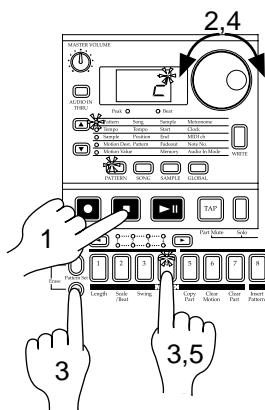
Creating a Rhythm Pattern

There are two ways to create a rhythm pattern. The first is Step Recording, in which you use the step keys to create the rhythm as you view the lit/unlit condition of the keys. The second is Realtime Recording, in which you strike the part keys at the timing at which you want to record each note. If you wish to erase the rhythm of each part before you create your own rhythm data, refer to p.43 "Erasing rhythm data from a part."

• Using the step keys (Step Recording)

In this method, you use the sixteen step keys to create the rhythm pattern while watching the lit/unlit condition of the keys to verify the rhythm.
For details refer to p.18 "Using the step keys to edit the rhythm (Step Recording)," in section 3. Basic operation (Quick Start).

• Using the part keys (Realtime Recording)

For details refer to p.19 "Using the part keys to edit the rhythm (Realtime Recording)," in section 3. Basic operation (Quick Start).

Adding accents to the rhythm pattern (Accent)

You can apply accents (changes in volume) to the rhythm pattern. When Accent is on, the specified notes (steps) of the entire pattern will be accented.

1. Press the Accent part key, and the accent pattern will be shown by the step keys.

2. Each time you press a step key it will alternate on/off, allowing you to specify the desired accent pattern. You can playback the pattern to hear the results as you create the accent part.

3. The amount of the accent is adjusted by the Level knob in the part edit section. Rotating the knob toward the right will increase the difference between on and off. If the knob is rotated all the way toward the left, there will be no effect. Play back the pattern to hear the results as you make this setting.
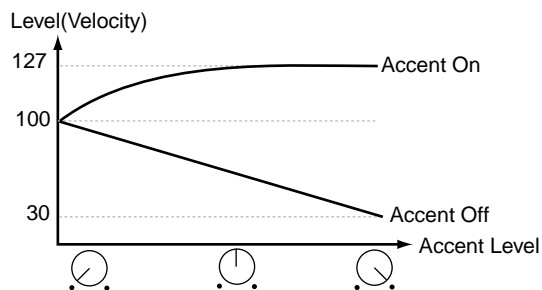
Pressing the Accent part key by itself will not produce sound. Also, if a part key is struck to play the sound, it will be sounded with Accent on (i.e., the emphasized sound). If you wish to hear the results of Accent, you need to play back the pattern.

Motion sequence
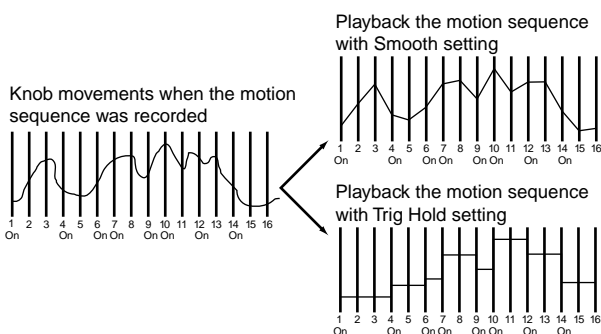
Playing a motion sequence

A motion sequence can be played back in one of the following two ways, and you can select the playback method independently for each part.

Smooth
Knob values will be connected smoothly, and the sound will change smoothly.

Trig Hold (trigger hold)
The value of the motion sequence knob will be held at the note timing of that part.

Knob movements when the motion sequence was recorded

Playback the motion sequence with Smooth setting

Playback the motion sequence with Trig Hold setting

There will be no effect when the Motion Sequence LED is dark (off).

Recording a motion sequence

You can record knob movements (motion sequence) for each part. One knob per part and the **Effect**, **Roll**, and **Reverse** keys are valid for a motion sequence. If you attempt to record a motion for another knob of the same part, the effect of the previous knob will disappear.

For the procedure, refer to 3. Basic operation (Quick Start) p.21 "Using a motion sequence."

To modify a previously-recorded motion sequence, refer to p.45 "Editing motion sequence data."

Effect, Roll, and Reverse will be played as Trig Hold even if Smooth is selected as the type.

Playing an effect motion sequence

This is a motion sequence dedicated to the effect. Unlike a part motion sequence, the knobs of both knobs **Edit 1** and **Edit 2** can be played simultaneously. The playback method is the same as for the **Smooth** setting of a part motion sequence.

There will be no effect if the Motion Seq setting of the effect is off (dark).
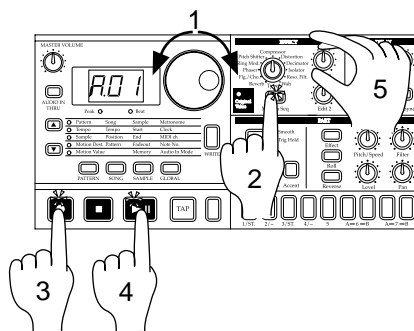
Recording an effect motion sequence

You can record the movements of both **Edit 1** and **Edit 2** knobs.

1. Select the pattern that you wish to edit.

2. Turn the Motion Seq key on (lit).

3. Press the Rec key to enter record-ready mode. (The Rec key will light, and the Play/Pause key will blink.)

4. Press the Play/Pause key to start the pattern. (The Rec key and Play/Pause key will light.)

5. Move the **Edit 1** knob to create various changes until the pattern plays for one cycle (16 steps × length, or 12 steps × length).

6. When the pattern has played for one cycle after you began moving the knob, the Rec key will automatically go dark and playback will resume, allowing you to hear the motion sequence that you just recorded.

You can record the movements of the **Edit 2**

The effect motion sequence will not apply unless the effect of each part is on (lit).

Playing a delay motion sequence

A "delay motion sequence" is a special motion sequence just for the delay effect. Unlike a motion sequence for a part, the movements of two knobs, Delay Depth and Delay Time, can be recorded simultaneously. The playback method is the same as for **Smooth** playback of a part motion sequence.

There will be no effect if the delay Motion Seq is off (dark).

Recording a delay motion sequence

Movements of the two knobs Delay Depth and Delay time can be recorded. If **BPM Sync** is on (lit), the motion sequence will synchronize to the tempo of the delay time.

1. Select the pattern that you wish to edit.

2. Turn the delay **Motion Seq** key on (lit).

3. Press the Rec key to enter record-ready mode. (The Rec key will light, and the Play/Pause key will blink.)

4. Press the Play/Pause key to start the pattern. (The Rec key and Play/Pause key will light.)

5. Move the Delay Depth knob to create various changes until the pattern plays for one cycle (16 steps × length, or 12 steps × length).

6. When the pattern has played for one cycle after you began moving the knob, the Rec key will automatically go dark and playback will resume, allowing you to hear the motion sequence that you just recorded.

You can record the movements of the Delay Time knob in the same way.
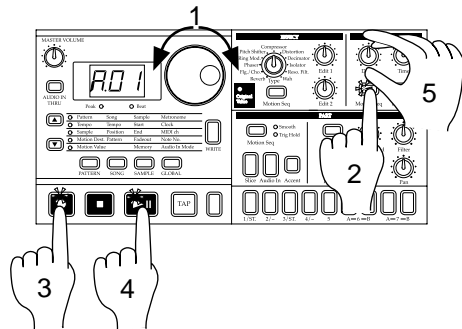
Checking motion data

If motion sequence data has been recorded, you can hold down the Shift key and press the Motion Sequence key to view the status in the step keys.

- If motion sequence (selected part data) is included
  Step keys 1, 2, 3, 4 will light

- If effect motion sequence (Edit 1 data) is included
  Step keys 5 and 6 will light

- If effect motion sequence (Edit 2 data) is included
  Step keys 7 and 8 will light

- If delay motion sequence (delay depth data) is included
  Step keys 9 and 10 will light

- If delay motion sequence (delay time data) is included
  Step keys 11 and 12 will light

It is not possible to check motion sequence data during playback, recording, or sampling, nor during Pattern Set Play.

Convenient functions for editing patterns

✎ If you wish to save the pattern you edit using these functions, you must perform the Write operation before selecting a different pattern or turning off the power.

Erasing rhythm pattern data from a part

To erase the rhythm pattern data for the selected part, you can use one of the following two methods in addition to turning each of the sixteen step keys off.

• Erasing data during playback or recording (Erase)

1. Press a part key to select the part from which you wish to erase data.

2. During playback or recording, hold down the Shift key and press the Rec key. As long as you continue holding these keys, data will be automatically be erased from the selected part.
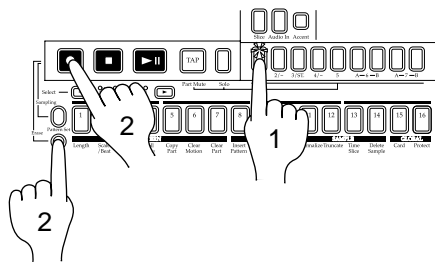

• Erasing all data from a part (Clear Part)

This operation erases all rhythm pattern and motion sequence data at once.
1. If the pattern is playing, press the Stop/Cancel key to stop playback.

2. Press a part key to select the part whose data you wish to erase.

3. Hold down the Shift key and press step key 7 (**Clear Part**). (Key 7 will blink.)

4. Once again press step key 7 to clear the data.

To cancel without clearing the data, press the Stop/Cancel key.
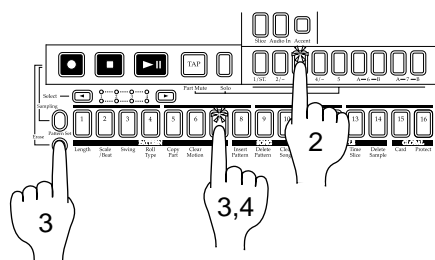
Copying a part (Copy Part)

You can copy the sound settings and rhythm pattern data (including motion sequence) from another part to the selected part.
1. If the pattern is playing, press the Stop/Cancel key to stop playback.

2. Press a part key to select the copy destination part (the key will light).

3. Hold down the Shift key and press step key 5 (**Copy Part**). (Key 5 will blink.) The display will begin blinking.

4. Rotate the dial to select the copy source pattern number.

5. Use the part keys to select the copy source part. (The copy source key will blink, and the copy destination key will be dark.)

6. Press step key 5 once again to execute the Copy Part operation.

To cancel, press the Stop/Cancel key.

✎ If a sample is copied to a monaural part, the sound and rhythm pattern data will be copied. However if a sample is copied from stereo sample part 1 or 3 to a monaural sample part, the sound will not be copied.

✎ The sound and rhythm pattern data of a sample part whose sample is stereo can be copied only between sample parts 1 and 3.

✎ For details on data copy within the same part, refer to the following section "Data Copy within a part."

Example

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Data Copy within a pattern

Phrase pattern data (including motion sequence data) that you create for a pattern of length 1 can be copied to the steps of lengths 2...4. This function is a convenient way to create a pattern that uses similar phrases repeatedly.

1. Create a pattern with a length of 1, and Write it into memory. (☞p.47 "Saving a pattern.")

2. At this point, the same data as in length 1 will automatically be copied to the steps of lengths 2...4.

3. Change the pattern length to the desired length. (☞p.38, "Length, Scale/Beat settings.")

4. The steps of lengths 2...4 will contain the same data as length 1. Now you can edit the data of lengths 2...4 to complete the pattern.

The data will be copied in a similar way when the pattern length is 2 or 3 (refer to the table below). If you shorten a pattern you create, the data will be copied according to the shortened length.

Copy Pattern data

Pattern length	Pattern data before writing	Pattern data after writing
1	A — — —	A A A A
2	A B — —	A B A B
3	A B C —	A B C C

The data that is copied automatically when you Write a pattern does not force the pattern length (1--4) to change. If the length is 4, data will not be copied within the pattern.

Erasing part, effect, or delay motion sequence data (Clear Motion)

Here's how you can erase the motion sequence data of a part, the effect, or the delay in a single operation.

1. If a pattern is playing, press the Stop/Cancel key to stop playback.

2. Hold down the Shift key and press step key 6 (**Clear Motion**). (Key 6 will blink.)

3. Press a part key or the Motion Seq key of **DELAY** or **EFFECT** to specify the motion sequence that you wish to erase. (The key will blink.)

4. Press step key 6 once again to execute the Clear operation. If you selected the **DELAY** motion sequence, both depth and time will be cleared. If you selected the **EFFECT** motion sequence, both Edit 1 and Edit 2 will be cleared.

If you wish to cancel without clearing, press the Stop/Cancel key.

Editing motion sequence data

You can edit the motion sequence of each part or the effect motion sequence. The data can be edited in units of individual steps.
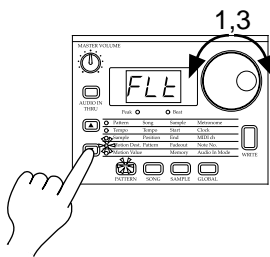
Selecting a motion sequence

Motion Dest.   PCh (Pitch)...tiⁿ (Time)

1. Select the pattern that contains the motion sequence data you wish to edit.

2. Use the cursor keys [▲][▼] to make the parameter select LED indicate **Motion Dest.**

3. Rotate the dial to select the parameter that you wish to edit.

For **PCh** (Pitch/Speed), **LEU** (Level), **FLt** (filter), and **PAn** (Pan), only one parameter is valid for each part.
EFF (Effect), **roL** (Roll), and **rEU** (Reverse) are valid for each part.
Ed1 (Edit 1), **Ed2** (Edit 2), **dPt** (Depth), and **tiⁿ** (Time) are valid for the pattern (all parts).
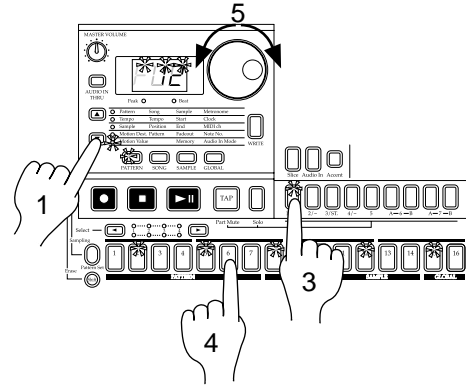

Editing the parameter values of a motion sequence

Motion Value

PCh (Pitch/Speed)	dis, –64...63
LEU (Level)	dis, 0...127
FLt (filter)	dis, 0...127
Pan (Pan)	dis, L.64...r.63
EFF (Effect)	dis, oFF...on
roL (Roll)	dis, oFF...on
rEU (Reverse)	dis, oFF...on
Ed1 (Edit 1)	dis, 0...127
Ed2 (Edit 2)	dis, 0...127
dPt (Depth)	dis, 0...127
tiⁿ (Time)	dis, 0...127

1. Use the cursor keys [▲][▼] to make the parameter select LED indicate **Motion Value.**

2. The display will alternately show the parameter name you selected in the preceding "Selecting a motion sequence," and the value of the parameter.

3. Press a part key to select the part that you wish to edit.

4. Press a step key to select the step that you wish to edit. The steps of a pattern whose length is two or greater can be selected successively by pressing the Select key.

5. Rotate the dial to edit the parameter value at that step. If the display indicates "**diS**," the motion sequence does not apply to that step.

⚠ For Pitch, Filter, Level, and Pan motion sequences, using Motion Dest. to change the parameter and editing will cause all values to be initialized to "**diS**."

⚠ If you move to another pattern without writing the edited motion sequence, it will revert to the state of the original motion sequence. If you wish to keep the edited motion sequence, you must perform the Write operation (☞p.47 "Saving a pattern").

⚠ While editing a motion sequence, it is not possible to use the step keys to switch steps on/off.

⚠ Depending on the part, some parameters cannot be selected.

⚠ While recording a motion sequence, the display will indicate "**rEC**," and it will not be possible to edit a motion sequence.

⚠ While editing a motion sequence, the Rec key has no effect.

5. Pattern mode

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Pattern Set

Pattern Set is a function that lets you assign your favorite patterns to each of the sixteen step keys, and switch them at the touch of a key.

During playback, you can successively switch patterns to perform a song.

By using the Select key in conjunction with this to switch pattern set groups, you can register and select 16×4 (total of 64) patterns.

Using Pattern Set to perform (Pattern Set Play)

Press the Play/Pause key to begin playback.

Hold down the Pattern Set key and press a step key to switch to the pattern that was registered for that step key.

By holding down the Pattern Set key and pressing a Select key, you can switch to a different group of registered pattern sets. The pattern set group will be indicated by the lower line of the Select LEDs (red).

By holding down the Shift key and pressing the Pattern Set key, you can hold the Pattern Set function (the key will light).

To defeat the Hold condition, press the Pattern Set key once again (the key will go dark).

Example

Step key Select LED	1	2	3	4	5		14	15	16
1	A01	A30	B03	B04	A51		A31	B43	B61
2	B21	B23	B56	B64	B28		B21	A07	A08
3	B01	B02	B04	B62	A04		A05	A45	A64
4	A11	A12	A13	A14	A15		A24	A25	A26

Pattern set 1

Pattern set 3

Hold down the Shift key and press the Pattern Set key to hold the function
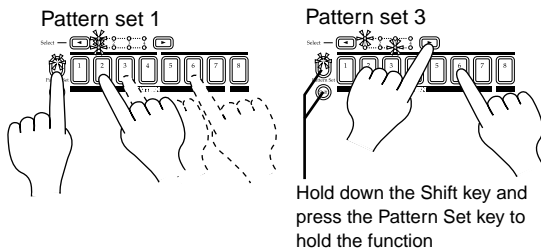
In Pattern Set Play, the timing at which patterns will change, tempo adjustment, and functions such as Reset & Play etc. are the same as for Pattern Play.

Pattern Set cannot be used during recording. When you enter recording (ready) mode, Pattern Set will be cancelled.

Registering a pattern for Pattern Set

1. With playback stopped, continue pressing the Pattern Set key (or Hold it) and press the step key for the location that you wish to register.

2. While continuing to press the Pattern Set key (or while Hold is still in effect), rotate the dial to select the pattern number that you wish to register. Release the Pattern Set key (or defeat Hold) to complete the registration process.

3. To save the pattern set registrations, press the Stop/Cancel key to stop playback. Continue pressing the Pattern Set key, and press the Write key (the Write key will blink).

4. The display will blink "**PSt.**" Press the Write key once again to save the data.

To cancel, press the Stop/Cancel key.

If the Global mode Memory Protect setting is on, it will not be possible to write the data. In this case, turn off the Global mode Memory Protect setting before you execute the Write operation.

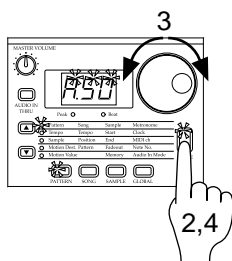Never turn the power off during the Write operation. This may damage the data.
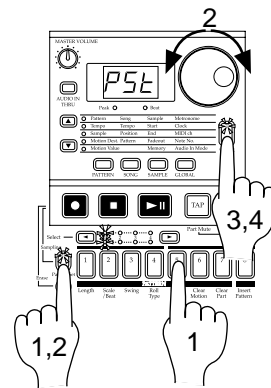
Saving a pattern (WRITE)

If you wish to keep the pattern data that you create, you must perform this Write operation. When you perform the Write operation, "Data Copy within a pattern" (p.44) will occur automatically, depending on the pattern length.

If you intentionally want to discard your edits and revert to the original pattern data, simply select a different pattern without Writing.

1. If the pattern is playing, press the Stop/Cancel key to stop playback. Use the cursor keys to make the parameter select LEDs indicate **Pattern**.

2. Press the Write key once (the key will blink). The pattern number will blink in the display.

3. Rotate the dial to select the writing destination pattern number.

4. Press the Write key once again to write the data.

To cancel, press the Stop/Cancel key.

If the Global mode Memory Protect setting is on, it will not be possible to Write. In this case, you must turn off the Global mode Memory Protect setting before you execute the Write operation.

Never turn off the power during the Write operation. This can damage the data.

6. Song mode

A song consists of patterns arranged in the desired order of playback.

You can create and save up to sixteen songs in the internal memory of the **ES**-**1**. In addition to pattern playback, songs can also record rhythms and knob movements.

Press the **SONG** mode key to enter Song mode.

Selecting a song

Song   **S01...S16**

Use the cursor keys to make the parameter select LEDs indicate **Song**.

Rotate the dial to select one of the sixteen songs **S01** to **S16**.

Setting the playback tempo

Tempo   **20.0...300.0**

• Using the dial to set the tempo

Use the cursor keys to make the parameter select LEDs indicate **Tempo**. Rotate the dial to set the tempo.

If you wish to change the tempo units below the decimal place, hold down the Shift key and rotate the dial.

• Using the tap tempo key to set the tempo

While the song is playing, strike the Tap key three times or more in succession at the desired tempo. The **ES**-**1** will calculate the interval at which the Tap key was pressed, and will set the tempo accordingly. The tempo can be set in the same way even when playback is stopped.

When you use the cursor keys to make the parameter select LEDs indicate **Tempo**, and the tempo you modified will appear in the display.

If you modify the tempo of a song but then switch to another song without Writing, the first song will return to its original tempo. If you wish to keep the tempo setting you modified, you must perform the Write operation (☞p.52 "Saving a song").

Playing a song (Song Play)

Press the Play/Pause key to begin playing the song. The song will begin playing from the pattern of the currently selected position. When the song ends, playback will automatically stop.

It is not possible to save edited sounds in a song. Please use Pattern mode to edit sounds.

What is Position?

"Position" refers to the playback or recording order of the patterns within the song, and is the unit by which you edit a song.

Fast-forward or rewind a song

During song playback, you can use the select keys to fast-forward or rewind. To fast-forward, press the [►] select key. To rewind, press the [◄] select key.

Rewind   Fast-forward

Switching songs

It is not possible to switch songs during playback, but it is possible to select the song number beforehand. If you select a song number during playback, the display will blink to indicate the selected number. When the currently playing song ends, playback will stop, and the newly selected number will now be steadily lit. Press the Play/Pause key to playback the selected song.

Playing from the beginning of a position or song (Reset & Play)

While a song is playing, you can hold down the Shift key and press the Play/Pause key to start playback from the beginning of the pattern specified for the currently-playing position. In addition, you can press the Play/Pause key while a song is playing to pause the playback, and then hold down the Shift key and press the Play/Pause key to playback from the beginning of the song.

Creating a song

Creating a song from scratch

Here's how to create a song by placing patterns in the desired order.

✎ If you switch to a different song while editing a song, your edited data will be lost. If you wish to keep the edited song, you must perform the Write operation to save the song data.

Erasing song data (Clear Song)

1. If the song is playing, press the Stop/Cancel key to stop playback. Then select the song that you wish to erase.

2. Hold down the Shift key and press step key 10 (**Clear Song**). (Key 10 will blink.)

3. Press step key 10 once again to erase the song data.

To cancel, press the Stop/Cancel key.

If you erase the song data by mistake, rotate the dial to re-select the song before you save it. This will restore the data to its original condition.
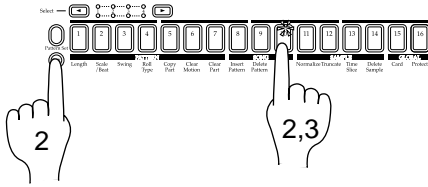
Specifying a pattern for each position

Position   **001...256**

Pattern   **A01...b64**

Here's how to specify the pattern for each position.

1. Use the cursor keys to make the parameter select LEDs indicate **Position**. Notice that the display indicates "**001**."

2. Use the cursor keys to make the parameter select LEDs indicate **Pattern**.

3. Rotate the dial to select the pattern that you wish to assign to position "**001**."

4. Press the select [▶] key to advance to the next position. The display will indicate "**End**."

5. Rotate the dial to select the pattern. The pattern you select here will be the pattern for position "**002**."

6. When you select a pattern for the "**End**" position, the "**End**" will move to the next position. Repeat steps 4 and 5 to assign as many patterns as you wish.

7. If you stop specifying, use the cursor keys to make the parameter select LEDs indicate **Song**.

To playback the completed song from the beginning, press the Play/Pause key once, and then press the Stop/Cancel key. Alternatively, use the cursor keys to make the parameter select LEDs indicate **Position**, and rotate the dial or use the select keys to set the position to "**001**." Then press the Play/Pause key.
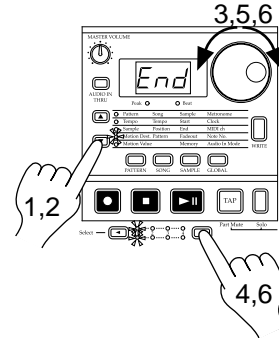
If you wish to view the order of patterns in the song, or to reselect the pattern for a specific position, make the parameter select LEDs indicate **Pattern**. Each time you press a select key, you will move to the next or previous position. You can use the dial to change the pattern number that is displayed.

Use the select keys to move through the positions, and use the dial to select patterns

Pattern A0 1 ·· A 13 ·· A22 ·· b0 1 ·· b30 ·· b60 ·· End

Alternatively, you can make the parameter select LEDs indicate **Position**, and use the dial or select key to select the position you wish to check. Then make the parameter select LEDs indicate **Pattern**, and view or change the pattern.

At the Position setting use the select keys or dial to move; then select Pattern and use the dial to select or view the pattern.

Position 00 1 ·· 002 ·· 003 ·· 004 ·· 005 ·· 006 ·· 007

Pattern A0 1   A 13   A22   b0 1   b30   b60   End

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Editing a song

You can insert a new pattern into a song, or delete an existing pattern. You can also add knob movements or your own performance to a song.

> ✎ If you wish to keep the edited song, you must perform the Write operation. If you select a different song or turn off the power without performing the Write operation, the song will return to the state in which it was before you edited it.

Inserting a pattern at a specified position (Insert Pattern)

You can insert a pattern at a specified position, and subsequent patterns will be moved backward (toward the end of the song).

Insert a new pattern at position 3
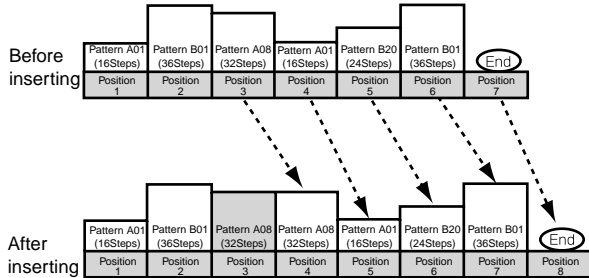
1. If the song is playing, press the Stop/Cancel key to stop playback.

2. Hold down the Shift key and press step key 8 (**Insert Pattern**). (The 8 key will blink.)

3. The position indication in the display will blink. Rotate the dial to select the position at which you wish to insert a pattern. (For example if you wish to insert a pattern into position 3. make the display blink "**003**.")

4. Press step key 8 once again, and a pattern will be inserted in front of that position.

To cancel, press the Stop/Cancel key.

The pattern that is inserted will be the pattern which had previously been at that position. Now you can specify the desired pattern for the position that was inserted.
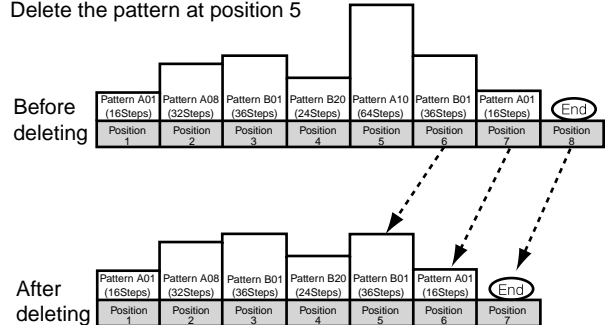
Data following the inserted pattern will be moved backward.
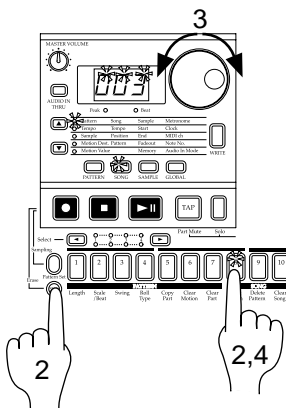
Deleting a pattern from a specified position (Delete Pattern)

You can delete a pattern from a specified position, and subsequent patterns will be moved forward (toward the beginning of the song).

Delete the pattern at position 5

1. If the song is playing, press the Stop/Cancel key to stop playback.

2. Hold down the Shift key and press step key 9 (**Delete Pattern**). (The 9 key will blink.)

3. The position indication in the display will blink. Rotate the dial to select the position from which you wish to delete the pattern. (For example if you wish to delete the pattern from position 5. make the display blink "**005**.")

4. Press step key 9 once again, and the pattern will be deleted.

To cancel, press the Stop/Cancel key.

When you delete a pattern, the event data (refer to the following page) at that position will also be deleted.
Data following the inserted pattern will be moved forward.
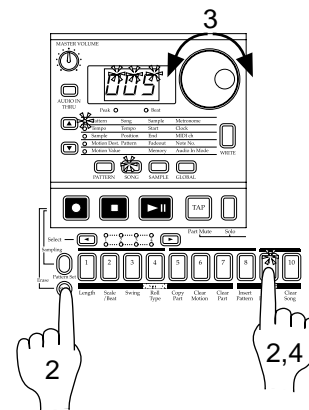
Changing the pattern for a specific position

1. If you are playing back, press the Stop/Cancel key to stop playback.

2. Use the cursor keys to make the parameter select LEDs indicate **Position**.

3. Use the dial to select the position that you wish to modify.

4. Use the cursor keys to make the parameter select LEDs indicate **Pattern**.

5. Use the dial to select the pattern that you wish to assign to the selected position.

> ✎ If you wish to audition the patterns as you select one, press the Pattern mode key to enter Pattern mode, and listen to the playback. To return to Song mode, press the Stop/Cancel key to stop playback, and then press the Song mode key.

Recording performances or knob movements into a song (Event Recording)

In addition to putting patterns together to create a song, Song mode also allows you to realtime-record knob movements and your performances on the part keys.

Recording this data in Song mode is referred to as "event recording."

Four types of musical data (event data) can be recorded by event recording.

· Pressing the part keys
· Using Part Mute or Part Solo
· Movements of the knobs or switches (only for the selected part)
· Tempo

Event recording allows you to record two or more types of events in the same area, as long as the events are played at the same time.

Event recording always rewrites the previous data ("replace recording"), and when you record your performance, any event recording data previously in that area will be erased. (It is not possible to layer event recording over the same area.)

1. Select the song on which you wish to record events.

2. Use the cursor keys to make the parameter select LEDs indicate **Position**.

3. Use the dial or the Select keys to move to the position at which you wish to begin recording.

4. Press the Rec key, and then press the Play/Pause key to begin event recording.

5. Use the part keys and/or the knobs to perform.

6. Press the Stop/Cancel key to stop event recording.
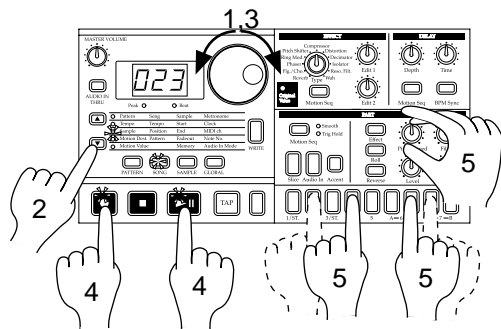
Knob movements that are event-recorded in Song mode will always playback in a way that corresponds to the **Smooth** type motion sequence setting (and not the **Trig Hold** type).

📝 If you wish to save the event recording, you must perform the Write operation. If you switch songs or turn off the power without performing the Write operation, the recorded performance will be lost.

📝 If during playback you operate a knob that had been event-recorded, playback of the events of that knob will be cancelled until it reaches the next position. However if you modify the tempo that was event-recorded, the tempo will be cancelled until the end of the song.

📝 After rewinding a song, it may not be possible to playback exactly according to the event data.

Deleting event data from a song

To delete event data from a song, you can perform event recording over the area that you wish to delete (without operating any knobs or keys).

Checking for song event data

If event data has been recorded in a song, holding down the Shift key and pressing the Motion Sequence key will make step keys 13 through 16 light.

📝 It is not possible to check for event data during playback or recording.

Saving a song (WRITE)

If you wish to save a song that you create, you must perform this Write operation.

If you decide not to save the song data you create, simply switch songs without performing the Write operation.

1. If the song is playing, press the Stop/Cancel key to stop playback.

2. Press the Write key once (the key will blink). The song number will blink in the display.

3. Rotate the dial to select the writing destination song number.

4. Press the Write key once again to save the data. (The key will light, and then go dark.)

To cancel, press the Stop/Cancel key.

If the Global mode Memory Protect setting is on, it will not be possible to write the data. In this case, turn off the Global mode Memory Protect setting before you execute the Write operation.

Never turn the power off during the Write operation. This may damage the data.

7. Global mode

In Global mode you can set parameters such as MIDI or Protect. Press the **GLOBAL** mode key to enter Global mode.
To execute Global mode, press the previous mode key.

✍ The settings you make in Global mode will be cancelled if you turn off the power without Writing. If you wish to save the settings you make, you must perform the Write operation (☞p.56 "Saving the settings you modify in Global mode").

Metronome settings

Metronome   oFF, r-0, r-1, r-2, on

Specify how the metronome will function. If you will be using realtime recording to create a pattern from scratch, it is convenient to use the metronome. The metronome will sound at quarter-note timing.

oFF: The metronome will not sound.
r-0: The metronome will sound only during recording (when the Rec and Play/Cancel keys are lit).
r-1: When recording, a one-measure count will be sounded before recording begins. The metronome will sound only during recording.
r-2: When recording, a two-measure count will be sounded before recording begins. The metronome will sound only during recording.
on: The metronome will sound during playback and recording. There will be no count before recording begins.

1. Use the cursor keys to make the parameter select LEDs indicate **Metronome**.

2. Rotate the dial to make the metronome setting.

3. Press the Pattern or Song key to return to the previous mode.

✍ The metronome setting cannot be written. When you turn on the power, it will always be "**oFF**."
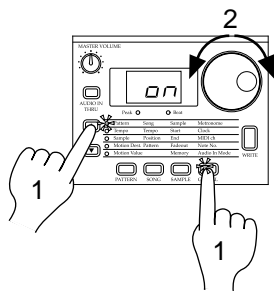
Synchronizing the ES-1 with external MIDI devices (MIDI Clock)

Clock   int, Ext

The Global mode **Clock** setting allows the tempo of the **ES-1** to be synchronized with the tempo of an external MIDI device that is able to send or receive MIDI Clock messages.
For details on synchronization settings of your external MIDI device, refer to the owner's manual for your device.

✍ Even if you set Clock to Ext, the **ES-1** will operate with its own internal clock if no MIDI Clock messages are being received at its MIDI IN connector.

Synchronizing the ES-1 to a master external MIDI device (Ext)

1. Use a MIDI cable to connect the **MIDI IN** connector of the **ES-1** to the MIDI OUT connector of the external MIDI device (sequencer or synthesizer etc.).

2. Use the cursor keys to make the parameter select LEDs indicate **Clock**.

3. Rotate the dial to select "**EΞt**" (external clock).

4. Make settings on the external MIDI device (master) so that it will transmit MIDI Clock messages.

5. Return to Pattern mode or Song mode.

6. When you start the sequencer of the external MIDI device, the **ES-1** will simultaneously begin playback.

7. If MIDI Clock data is being received at the **MIDI IN** connector, you can make the **ES-1** playback in synchronization with the external MIDI device by pressing the **ES-1**'s Play/Pause key.
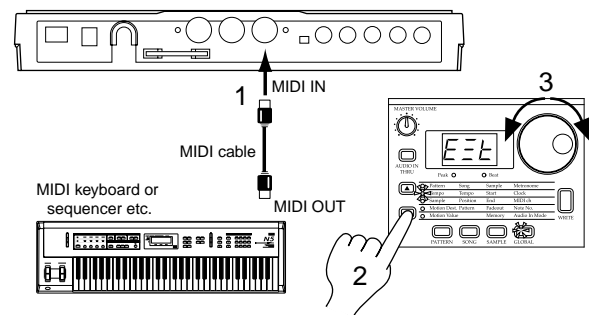
✍ If the MIDI Clock parameter is set to "**EΞt**" and the **ES-1** is synchronized to the external MIDI clock, it will synchronize to the tempo of the external sequencer, and it will not be possible to change the tempo on the **ES-1**.

If a MIDI Start message is received while the **ES-1** is already playing in synchronization with MIDI Clock, the **ES-1** will begin playback from the beginning of the currently playing pattern (or in the case of a song, from the beginning of the pattern that was playing when the Start message was received).

7. Global mode

Synchronizing an external MIDI device to the ES-1 as master (int)

1. Use a MIDI cable to connect the **MIDI OUT** connector of the **ES-1** to the **MIDI IN** connector of the external MIDI device (sequencer or synthesizer etc.).

2. Use the cursor keys to make the parameter select LEDs indicate **Clock**.

3. Rotate the dial to select "**Int**" (internal clock).

4. Make settings on the external MIDI device (slave) so that it will receive MIDI Clock messages.

5. When you start playback on the **ES-1**, the external MIDI device will begin playback in synchronization.

When you perform the Reset & Play operation to begin playback from the beginning of the pattern, the **ES-1** will transmit only a MIDI Start message.
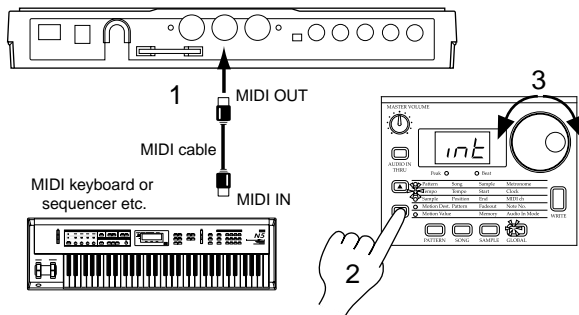
MIDI channel settings (MIDI ch)

MIDI ch   1...16

This sets the MIDI channel. The same MIDI channel is used for both transmission and reception. With the factory settings this will be "**11**"

1. Use the cursor keys to make the parameter select LEDs indicate **MIDI ch**.

2. Rotate the dial to select the channel.

Setting the MIDI note number for each part (Note No.)

In order to make this setting, you must enter Global mode from Pattern or Song mode.
If you enter from Sample mode, the display will indicate "- - -" and it will not be possible to change the setting.

### Note No.   C-1...G9

Here you can specify the MIDI note number for each part.
If you specify the same note number for two or more parts, the sounds of those parts will be played simultaneously when that note is received from an external MIDI device.

1. Use the cursor keys to make the parameter select LEDs indicate **Note No**.

2. Press the part key whose note number you wish to change (the key will light).

3. Rotate the dial to select the note number.

The factory settings are as follows.

Part	Note name	Note number
Sample 1	C2	36
Sample 2	D2	38
Sample 3	E2	40
Sample 4	F2	41
Sample 5	G2	43
Sample 6A	C4	60
Sample 6B	C♯4	61
Sample 7A	F♯2	42
Sample 7B	A♯2	46
Slice Sample	B2	47
Audio In	A2	45

Note names will appear in the display as follows.

Display for A♯2   Display for B4   Display for D♯–1
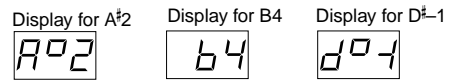
The correspondence between note names and note numbers will differ by manufacturer. Please refer to the owner's manual for the device you have connected.

Setting the audio in mode (Audio In Mode)

Audio In Mode

L (monaural), St. (stereo)

This setting specifies whether the sound that is input from the audio in jack will be handled as monaural (left channel only) or stereo. When using a monaural source such as MIC input, select "**L**." When using a stereo source such as a CD player, select "**St.**."

1. Use the cursor keys to make the parameter select LED indicate **Audio In Mode**.

2. Rotate the dial to select either "**L**" or "**St.**."

Even if the Audio In Mode is set to stereo, a Sampling Mode setting of monaural will cause the left and right channels to be mixed and sampled in monaural.

If you set the Audio In Mode to stereo, use a stereo phone plug to make connections.
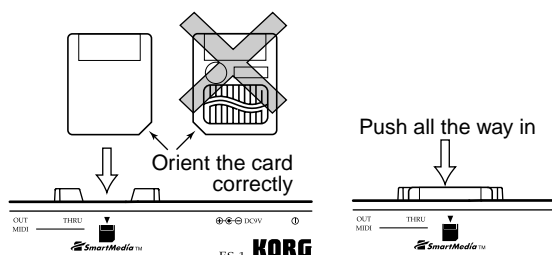
Using SmartMedia™

The **ES-1** allows you to use SmartMedia to save or load internal data.

Samples (WAVE files, AIFF files) you create on your computer can also be loaded into the **ES-1**.

The **ES-1** can use 3 V (3.3V) SmartMedia of 4 MB — 64 MB.

WAVE, AIFF Load a file **ES-1**
SmartMedia™ Save a file

Make sure that the SmartMedia card is oriented correctly, and insert it all the way into the SmartMedia slot.

Orient the card correctly   Push all the way in

OUT MIDI   THRU   ⊕⊖⊝ DC9V   ○   OUT MIDI   THRU
SmartMedia™   ES-1 **KORG**   **SmartMedia™**

Formatting Smart Media (Format)

Here's how to format Smart Media for use on the ES-1.

1. Insert the SmartMedia card into the SmartMedia slot.

2. Hold down the Shift key, and press step key 15 (Card). (Key 15 will blink.)

3. The display will indicate "**Lod**." Rotate the dial toward the right to select "**For**," and press key 15.

4. The display will indicate "**no**." Turn the dial to the left to select "**yES**," and press key 15 to execute the formatting operation. While formatting is being performed, the progress will be shown by the step keys.

3 `For` ⟳   4 `YES` ⟲

When formatting is complete, or if you select "no" and press key 15, the display will return to the previous state.

To cancel, press the Stop/Cancel key.

⚠ The entire contents of the SmartMedia will be lost when you format it.

⚠ In some cases, SmartMedia that was formatted on a device other than the **ES-1** will not be recognized correctly. If so, please re-format it on the **ES-1**.
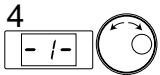
Saving data to SmartMedia (Save)

Here's how to save all **ES-1** Pattern data, Song data, Sample data, and Global data on a SmartMedia card.

1. Insert the SmartMedia card into the SmartMedia slot.

2. Hold down the Shift key, and press step key 15 (**Card**). (Key 15 will blink.)

3. The display will indicate "**Lod**." Rotate the dial toward the right to select "**SAU**," and press key 15.

⚠ IIf the Smart Media has not been formatted, or if it cannot be recognized correctly, the display will indicate "For." Please execute "Formatting Smart Media."

4. The display will indicate the file number that will be saved. If the display indicates (for example) "**-1-**," a new file is being saved. If the display indicates "**[1]**," data is being saved to an existing file. (In this case the old data will be overwritten.) Use the dial to select a file.

5. Press key 15 to execute the Save operation. While the data is being saved, the progress will be shown by the step keys.

When saving is complete, the display will return to the condition in which it was before you executed Save (key 15 will be dark).

To cancel, press the Stop/Cancel key.

3 `SAU` ⟳   4 `- 1-` ⟳

⚠ If a write protect label is affixed to the SmartMedia, data cannot be saved. In this case, remove the write protect label from the SmartMedia before executing Save.

⚠ Never turn off the power or remove the SmartMedia while Save or Format is being executed. Doing so may render the SmartMedia unusable.

⚠ Approximately 4 Mbytes of space is required to save one file. Saving will not be possible if there is insufficient space on the SmartMedia.

Loading all data from SmartMedia to the ES-1 (All Load)

Here's how to load all **ES-1** Pattern data, Song data, Sample data, and Global data from SmartMedia.

1. Insert the SmartMedia into the SmartMedia slot.

2. Hold down the shift key and press step key 15 (**Card**).

3. The display will indicate "**Lod**." Press key 15.

4. The display will show a file number. Use the dial to select a file number **1—9** (file "**[E]**" is not an **ES-1** file, so do not select it here), and then press key 15.

5. The display will indicate "**ALL**." Press Write key to execute the Load operation. (Key 15 will light, and the Write key will blink.) The loading progress will be shown by the step keys (the Write key will light.)

When loading is finished, the **ES-1** will enter Pattern mode with **A01** selected.
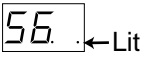
If you decide to cancel the procedure, use the mode keys to move to Pattern mode, Song mode, or Sample mode.

3 `Lod` ○   4 `[1]` ○   5 `ALL` ○

⚠ With the factory settings memory protect is turned on, so that saving will not be possible. Turn off memory protect before you execute Load. (☞p.56 "Memory Protect")

Loading only a single sample from SmartMedia (Sample Load)

1. Insert the SmartMedia into the SmartMedia slot.

2. Hold down the shift key, and press step key 15 (**Card**). (Key 15 will blink.)

3. The display will indicate "**Lod**." Press key 15.

4. A file number will blink in the display. Use the dial to select the desired file number. If you wish to load a WAVE file or AIFF file that you created on your computer, select file "**[E]**." After you select a file, press key 15.

5. The display will indicate "**ALL**" (if you selected file "**[E]**," the number will blink). Rotate the dial toward the right and the sample number will blink. At this time you can press the Play/Pause key to play back the sample and audition it.

6. After selecting the sample, press key 15. (Key 15 will light, and the Write key will blink.)

7. The load destination sample number will blink in the display. Use the dial to select the sample number. In the case of a monaural sample (or slice sample) you can select from "**00.**" through "**99.**" In the case of a stereo sample you can select from "**00.S**" through "**49.S**".

   When you choose the unused sample number, a period is indicated on the lower right side of display.

   $\boxed{56.}$ ←Lit

8. Press the Write key to begin loading (the Write key will light). The loading progress will be shown by the step keys.

When loading ends (the Write key will go dark), you will return to step 5.

If you decide to cancel, use the mode keys to move to Pattern mode, Song mode, or Sample mode.

Only WAVE files and AIFF files with filenames consisting of a two-digit number plus an extension will be recognized; e.g., "**00.wav**" or "**00.aif**." If both .wav and .aif files with the same two-digit number exist, the WAVE file will be given priority.

3 [Lod] 4 [C1] 5 [01.1]

for a WAVE or AIFF file 4 [CE] 5 [03.]
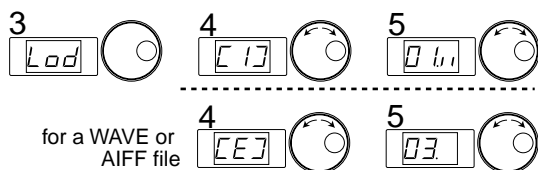
✍ The selected sample will play back for approximately 16 seconds (or 8 seconds for a stereo sample) from its beginning.

✍ 8/16 bit linear PCM mono/stereo format WAVE or AIFF files can be loaded. Place the file in the root directory of the SmartMedia.
WAVE or AIFF files with a sampling frequency other than 32 kHz will have a different pitch when played back on a personal computer etc.

✍ With the factory settings, memory protect is turned on so that saving is not possible. Turn off memory protect before loading. (☞p.56 "Memory Protect")

✍ If there is insufficient free memory within the **ES-1**, it may not be possible to load the sample. Before you begin, use the Sample mode Memory function (☞p.32) to check the remaining amount of sampling time.

✍ When a sample is loaded, the data locations of the internal memory are optimized. This may take a certain amount of time. During this time, the display will indicate that data is currently being loaded. Never turn off the power until loading is complete (the Write key is dark).

Memory Protect (Protect)

This is the protect setting for Pattern mode, Song mode, and Sample mode. When protect is "**on**," the Write key will not function, and it will not be possible to rewrite data or receive a MIDI data dump.

When you wish to save edited data or receive a data dump, turn protect "**oFF**."

1. Press the Stop/Cancel key to stop playback.

2. Hold down the Shift key and press step key 16 (**Protect**). (Key 16 will blink.)

3. Rotate the dial to change the blinking display to either "**on**" or "**oFF**."

4. Press step key 16 once again to finalize the protect on/off setting (key 16 will go dark).

If you decide to cancel without changing the setting, press the Stop/Cancel key.

If you wish to save the protect setting, perform the Global mode Write operation (described below).

✍ With the factory settings, this is turned on.

✍ This setting is valid in Pattern mode, Song mode, and Sample mode. In Global mode, it is always possible to execute Write regardless of the Memory Protect setting.

Saving your changes in Global mode (WRITE)

Here's how you can save the changes you made in Global mode. If you wish to save the changes you made, you must perform this Write operation. The settings will take effect whenever the power is turned on. Conversely, if you do not want to save the changes you made, simply turn off the power without Writing.

1. Press the Stop/Cancel key to stop playback.

2. Press the Global mode key.

3. Press the Write key once (the key will blink). The display will indicate "– – –."

4. Press the Write key once again to complete the operation.

If you decide to cancel, press the Stop/Cancel key.

In Global mode it is always possible to write, regardless of the Memory Protect setting (preceding section).

✍ Never turn off the power while data is being written into memory. Doing so may destroy the data.

8. Appendices

About MIDI

1. MIDI channels

Similarly to a television, data can be received when the channel of the receiving device matches the channel on which the data is being transmitted.

The transmit/receive channel of the **ES-1** is set by the MIDI Channel setting in MIDI mode.

2. Note-on/off

When you strike a key pad, the note number assigned to that pad and a velocity value will be transmitted as a Note-on message [9n, kk, vv] (n: channel, kk: note number, vv: velocity). On the **ES-1**, the vv: velocity value is determined by the Accent level. When you release a pad, a note-off message [8n, kk, vv] is transmitted. However, most devices do not transmit note-off velocity, and neither does the **ES-1**. When note-on/off messages for a note number assigned to a part are received, that part will sound.

Note-on/off messages are transmitted and received on the MIDI channel that you specify in MIDI mode.

3. Switching patterns

When you change patterns, a Program Change message is transmitted. At this time if a program change is received on a MIDI channel that matches the MIDI channel setting of the **ES-1**, a pattern of the same group (e.g., from A01 to A02, etc.) will be selected.

4. Using NRPN messages to edit

NPRN (Non Registered Parameter No.) messages are messages to which manufacturers are free to assign their own functions. On the **ES-1**, NRPN are assigned to all knobs and keys except for the accent part key of the Part Edit section and the Effect section.

To edit, first use NRPN (LSB) [Bn, 62, rr] and NRPN (MSB) [Bn, 63, mm] (control change #98 and 99) (rr, mm: lower and upper bytes of the parameter no.) to select the parameter. Then transmit Data Entry (MSB) [Bn, 06, mm] and Data Entry (LSB) [Bn, 26, vv] (control change #06 and 38) (mm, vv: upper and lower bytes of the value, together expressing 16,384 steps) to set the value. The **ES-1** uses only the MSB value (128 steps) of the Data Entry message.

5. If "stuck notes" occur

If for some reason a note fails to stop sounding, you can usually switch modes to stop the sound. If a note played via MIDI fails to stop, you can simultaneously press the Shift key and the Stop/Cancel key to perform a MIDI Reset.

6. About synchronization

Two or more sequencers can be connected via MIDI and made to playback in synchronization. Messages used for synchronization (realtime messages) include Timing Clock [F8], Start [FA], Continue [FB], and Stop [FC]. In a synchronized system, one synthesizer (the master) will transmit these messages, and the other sequencer(s) (the slave(s)) will receive these messages. The slave devices will playback according to the tempo specified by the Timing Clock messages transmitted by the master. Twenty-four Timing Clock messages are transmitted for each quarter note. When the **ES-1**'s Global mode parameter Clock is set to INT, it will be the master device, and will transmit these realtime messages. When Clock is set to EXT, it will be the slave device, and will receive these realtime messages. However even when Clock is set to EXT, the **ES-1** will operate according to its own internal clock if no Timing Clock messages are being received. The Start message specifies when playback will begin. When the Start/Pause key is pressed on the master device, it will transmit a Start message. Slave devices that receive this Start message will synchronize to the Timing Clock messages subsequently received, and will begin playback from the beginning. If the Start/Pause key is pressed on the master devices when it is paused, the master will transmit a Continue message. When a slave device receives the Continue message, it will resume playback from the point where it is currently stopped. If the Stop key is pressed during playback, the master will transmit a Stop message. Slave devices will stop playback when they receive a Stop message.

7. Synchronization in Song mode

In Song mode, the **ES-1** can transmit and receive Song Select and Song Position Pointer messages. When you switch songs, a Song Select [F3 ss] message will be transmitted (ss: song number, where one of 128 songs can be selected. On the **ES-1** you can select 16 songs.) If the **ES-1** receives a Song Select message in Song mode, it will switch songs. Transmission and reception of Song Select messages can be restricted by the MIDI Filter settings of MIDI mode. If you change the current position on the master device (i.e., the device whose Clock is set to INT) when the song is stopped, a Song Position Pointer message [F2 pp pp] will be transmitted. (pp: the number of MIDI beats from the beginning of the song; i.e., the number of Timing Clocks divided by six.) Song Position Pointer indicates the location at which the sequencer is currently stopped. When Song Position Pointer is received in Song mode by a slave device (i.e., a device whose Clock is set to EXT), it will change the location at which its song is currently stopped to match the location of the master. However on the **ES-1**, the length of each pattern may be different, so the master and slave will not necessarily be in the same location. When the Start/Pause key is pressed on the master device, a Continue message is transmitted, and the song will begin playback from the currently selected position. When the slave device receives the Continue message, it will synchronize to the Timing Clock messages and begin playback from the current point in the song. In the same way as synchronizing the playback from the beginning of the song, you can specify the location at which playback will start, and then playback in synchronization. If you use the dial or Select keys to fast-forward or rewind while the song is playing, Song Position Pointer messages will not be transmitted. Be aware that if you perform these operations during synchronized playback, the synchronization will be lost. Also, even if Song Position Pointer messages are received during playback, the playback location will not change.

8. About system exclusive messages

Manufacturers are free to use system exclusive messages in any way they choose, and these messages are used mainly to transmit and receive parameters that are specific to particular devices, such as sound data and editing data.

The system exclusive message format of the **ES-1** is [F0, 42, 3n, 57, ... F7] (n: exclusive channel).

However, some system exclusive messages have been defined for use in a specific way, and these are called "universal system exclusive messages."

Of the various types of universal system exclusive messages, the **ES-1** supports the following two types.

· When an Inquiry Message Request [F0, 7E, nn, 06, 01, F7] message is received, the ES-1 will transmit an Inquiry Message [F0, 7E, nn, 06, 02, (9 bytes), F7] that means "I am a Korg ES-1, and my system version is ..."

· When a Master Volume [F0, 7F, nn, 04, vv, vv, 01, F7] is received, the volume of the entire system will be adjusted.

9. Transmitting sound settings and other data (Data Dump)

Song, Pattern, and Global data can be transmitted as MIDI exclusive data, and stored on an external device. This data is transmitted and received on the MIDI channel selected in Global mode. Data dumps will be transmitted when a Data Dump Request of the corresponding type is received.

10. Editing sounds etc.

By sending MIDI exclusive data dumps, you can rewrite all patterns or individual programs. By using NRPN messages in Pattern mode, you can edit the knobs that are active for each part.

Troubleshooting

The display does not light up when I press the Power switch!
• Is the AC adapter connected?
• Is the AC adapter plugged into an AC outlet?

No sound!
• Is your amp, mixer, or headphones connected to the correct jack? (Can you playback a pattern? If so, the connections are correct.)
• Are your amp or mixer powered-on and set correctly?
• Is the master volume knob of the **ES-1** raised?
• Has the volume been lowered by a MIDI Master Volume message?

Sound does not stop!
• When a pattern is played back, it will continue playing repeatedly. When you are finished listening to a pattern, press the Stop/Cancel key (p.13, 14).

Sounds or operations are different than when I edited!
• Did you perform the Write operation after editing? (p.47, 52) After you have edited, you must perform the Write operation before switching songs or patterns, or turning off the power.
• Did you edit the selected pattern or song after writing it?

Can't control via MIDI!
• Is the MIDI cable connected correctly?

When playing the **ES-1** from an external device
• Has the **ES-1** been set to receive MIDI data on the channel on which the data is being transmitted? (p.54)
• Is the MIDI mode MIDI Channel parameter set to the desired channel? (p.54)

When playing an external device from the **ES-1**
• Does the MIDI channel of the **ES-1** match the MIDI channel of the receiving device? (p.54)

Can't write a pattern or song!
• Is the Global mode Protect setting turned "**on**"? (p.56)

Striking a part key does not play the specified sound!
• After editing the sound of a part, did you perform the Write operation? (p.47)
• Is a motion sequence operating? (p.41)

Error messages

Error messages will be cancelled when you press the Stop/Cancel key.

Er.1   Writing could not be performed.

Er.2   When writing a song to a song of a different number, you exceeded the maximum number of events that can be recorded. Delete unneeded song event data.

Er.3   There is insufficient space in internal memory or on SmartMedia. You must first delete un needed samples or files to create vacant space, and then execute the Write or Save operation. 4 MB or more vacant space is required in order to save **ES-1** data on SmartMedia.

Er.4   The file could not be loaded (or played) from the SmartMedia. Either the file format is wrong, or the data has been damaged. Files that can be loaded are **ES-1** files, WAVE files (8 bit or 16 bit, monaural/stereo), and AIFF files (8 bit or 16 bit, monaural/stereo).

Er.7   An error occurred while loading a file from SmartMedia or saving to SmartMedia.

Er.8   The SmartMedia does not contain any file that the **ES-1** can recognize.

Er.9   Protect is turned "**on**" for the memory of the data you are attempting to write. In Global mode, turn memory protect "**oFF**" (p.56). A write protect label is affixed to the Smart Media. Remove the write protect label from the SmartMedia.

Full   During song event recording, the event data memory has filled up. Delete unneeded song event to free up memory (p.51).

Specifications

System: Sampling

Number of parts: 12 parts
Sample parts × 9
Slice sample part
Audio in part
Accent part

Sample capacity: 150 (100 monaural, 50 stereo)
Maximum total of 95 seconds (monaural)

Memory capacity: 128 patterns, 16 songs

Master effects: Delay
Normal, Motion Sequence, BPM Sync

Insert effects: 11 types
Reverb, Flanger/Chorus, Phaser, Ring Modulator, Pitch Shifter, Compressor, Distortion, Decimator, Isolator, Resonance Filter, Wah

Sequencer: Pattern
Maximum 64 steps per part,
Motion Sequence,
1 parameter per part, 64 events
Song
Maximum 256 steps per song,
Maximum 35,700 events of event recording

Connectors: PHONES
Phone jack: stereo
Nominal level: 21 mW + 21 mW (32 ohm)

OUTPUT (L/MONO, R)
Phone jack: monaural x 2
Nominal output level: –10 dBu
Output impedance: 1 k-ohm

AUDIO IN (phone jack: mono/stereo)
Nominal input level: –10 dBu(LINE)
–40 dBu(MIC)
Input impedance: 47 k-ohm

MIDI (IN, OUT, THRU)
SmartMedia™: 4—64 MB, 3V (3.3V)

Power supply: DC9V (included AC adapter)

Power consumption: 6 W

Dimensions: 300 (W) x 224.9 (D) x 55.4 (H)
(including rubber feet)

Weight: 1.28 kg

* Specifications and appearance are subject to change without notice for improvement.

* SmartMedia™ is a registered trademark of Toshiba Corporation.

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Pattern Name List

* Patterns for the demo song are assigned to bank B.
* If the factory preset patterns are rewritten or erased, they cannot be restored to their original state. If you do not want to lose the factory preset patterns, purchase a SmartMedia card and perform the Save operation to make a backup.

A Bank

No.	Pattern Name	Style	Tempo
A01	Hardstep	Drum'n'Bass	172
A02	Darkside	Drum'n'Bass	170
A03	Crumb and Mace	Drum'n'Bass	175
A04	Sizing it Up	Drum'n'Bass	175
A05	Tribal Step	Drum'n'Bass	175
A06	Mad Walking Bass	Drum'n'Bass	183
A07	Cyber Funk	Drum'n'Bass	170
A08	Rave Jump Up	Drum'n'Bass	178
A09	Filter Bass	Drum'n'Bass	178
A10	Dark & Cyber	Drum'n'Bass	182
A11	Boosted Jazz	Drum'n'Bass	175
A12	Flangungle	Drum'n'Bass	164
A13	Digimix	Drum'n'Bass	180
A14	Steppa	Drum'n'Bass	190
A15	Bass Jacks	Techno/House	130
A16	Tek House	Techno/House	129
A17	Tribal House	Techno/House	126
A18	Phased House	Techno/House	122
A19	Crazy House	Techno/House	136
A20	Garage House	Techno/House	128
A21	System "R"	Techno/House	136
A22	Tech Garage	Techno/House	133
A23	Two Step	Techno/House	130
A24	Warped Two Step	Techno/House	132
A25	Deep Space	Techno/House	130

No.	Pattern Name	Style	Tempo
A26	Sweep Trance	Techno/House	138
A27	Epic Trance	Techno/House	137
A28	Barealic	Techno/House	137
A29	Minimal	Techno/House	140
A30	Breakbeats Trance	Techno/House	141
A31	Psychedelic	Techno/House	145
A32	Filter Breakbeats	Techno/House	137
A33	Distorted Slice	Techno/House	144
A34	Machine Music	Techno/House	135
A35	Boom Room	Techno/House	140
A36	Hardcore Electro	Techno/House	142
A37	Can We Come Up?	Techno/House	120
A38	Glow Stix	Techno/House	130
A39	Brooklyn Style	Techno/House	150
A40	DJ Hop	HipHop	80
A41	Wah Hop	HipHop	82
A42	R&B Vibe	HipHop	78
A43	Muddy Hop	HipHop	75
A44	Rock'n'Hop	HipHop	84
A45	Hum Ring	HipHop	90
A46	Baggy Pants	HipHop	90
A47	Bristol Beat	HipHop	85
A48	Swingy Breakz	HipHop	97
A49	B-Boy	HipHop	106
A50	Future Jazz	HipHop	136

No.	Name	Style	Tempo
A51	Boomy Big Beat	Rock/BigBeat	127
A52	Pushin'	Rock/BigBeat	118
A53	Rollicking Breakz	Rock/BigBeat	123
A54	Sweep Rockin' Beats	Rock/BigBeat	133
A55	Big Red Beets	Rock/BigBeat	120
A56	Spot	Rock/BigBeat	120
A57	Hardcore BreakBeat	Rock/BigBeat	116
A58	Digital Punk	Rock/BigBeat	119
A59	Expanded Onion	Rock/BigBeat	125
A60	Xplosive	Rock/BigBeat	130
A61	Rx Bros.	Rock/BigBeat	120
A62	Industrial	Rock/BigBeat	144
A63	Latin Funk	Rock/BigBeat	117
A64	African Desert	Other	94

Sample Name List

* If the factory preset samples are rewritten or erased, they cannot be restored to their original state. If you do not want to lose the factory preset samples, purchase a SmartMedia card and perform the Save operation to make a backup.

No.	Sample Name
00.	BD1-Boosted House
01.	BD2-House
02.	BD3-Dance
03.	BD4-ES Dance
04.	BD5-Ringy
05.	BD6-Boosted Hip
06.	SD1-Hip
07.	SD2-House
08.	SD3-Tiny Dance
09.	SD4-ES Hip
10.	SD5-Ringy
11.	SD6-Saturated
12.	CYM1-Crash Cymbal
13.	CYM2-Ride-Edge
14.	CYM3-HH Crisp Close
15.	CYM4-HH Crisp Open
16.	CYM5-HH Normal Close
17.	CYM6-HH Normal Open
18.	CYM7-HH Tite Old
19.	TOM-R&B Tom

No.	Sample Name
20.	PRC1-Conga Lo Slap
21.	PRC2-Conga Hi Slap
22.	PRC3-Dance Clap
23.	PRC4-Tambourine
24.	PRC5-Shaker 1
25.	PRC6-Shaker 2
26.	VOX1-Uhh
27.	VOX2-Funny
28.	VOX3-OK
29.	VOX4-Oops!
30.	VOX5-Stupid
31.	VOX6-CompuVoice-Test
32.▪	VOX7-CompuVoice-Do It
33.	SE1-Cannon
34.	SE2-Industry-Metal
35.	SE3-Short Noise
36.	SE4-Beep
37.	SE5-Industrial Noise
38.	SE6-Metal Hit
39.	SE7-Zap

No.	Sample Name
40.	SE8-Record Reverse
41.	SE9-Scratch
42.	HIT1-Trance Hit
43.▪	HIT2-Organ Hit
44.	HIT3-Raven Hit
45.	BAS1-Acoustic Bass
46.	BAS2-UK Garage Bass
47.	BAS3-Boosted Bass
48.	BAS4-Distorted Saw
49.▪	BAS5-Wah Guitar 060
50.▪	Drum Loop 107
51.▪	Drum Loop 120
52.▪	Percussion Loop 133
53.▪	Percussion Loop 100

Song Name List

* If the factory preset songs are rewritten or erased, they cannot be restored to their original state. If you do not want to lose the factory preset songs, purchase a SmartMedia card and perform the Save operation to make a backup.

S01: Heavenly Beatbox
S02: DJ's Don't Dance
S03: Souped Up House

Function ...		Transmitted	Recognized	Remarks
Basic channel	Default	1 – 16	1 – 16	Memorized
	Changed	1 – 16	1 – 16	
Mode	Default		3	
	Messages	×	×	
	Altered	··············		
Note number :		0– 127	0– 127	Specified by MIDI mode for each part
	True voice	··············		
Velocity	Note ON	O 9n, v=30 – 127	O 9n, v=1 – 127	Transmitted velocity is specified by Accent level
	Note OFF	×	×	
After Touch	Polyphonic	×	×	
	Channel	×	×	
Pitch Bender		×	×	
Control Change	98, 99	O	O	NRPN(LSB,MSB)
	8	O	O	Data Entry(MSB)
Program Change :		O 0 – 127	O 0 – 127	Transmitted/received in Pattern mode
	True#	* * * * * * * * * * * * * *	0 – 127	
System Exclusive		O	O	*2
System Common	: Song Pos	O	O	Transmitted/received in Song mode *1
	: Song Sel	O 0 – 15	O 0 – 15	
	: Tune	×	×	
System Realtime	: Clock	O	O	*1
	: Commands	O	O	*1
Aux Messages	: Local ON/OFF	×	×	
	: All Notes OFF	×	O	
	: Active Sense	O	O	
	: Reset	×	×	
Notes		***1: Sent but not received when Global mode Clock is "Int."When set to "Ext," received but not sent.** ***2: Master Volume and Inquiry messages are supported in addition to Korg exclusive.**		

Mode 1: OMNI ON, POLY   Mode 2: OMNI ON, MONO   O : Yes
Mode 3: OMNI OFF, POLY   Mode 4: OMNI OFF, MONO   × : No

✻ Consult your local Korg distributor for more information on MIDI IMPLEMENTATION.

KORG

NOTICE
KORG products are manufactured under strict specifications and voltages required by each country. These products are warranted by the KORG distributor only in each country. Any KORG product not sold with a warranty card or carrying a serial number disqualifies the product sold from the manufacturer's/distributor's warranty and liability. This requirement is for your own protection and safety.

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